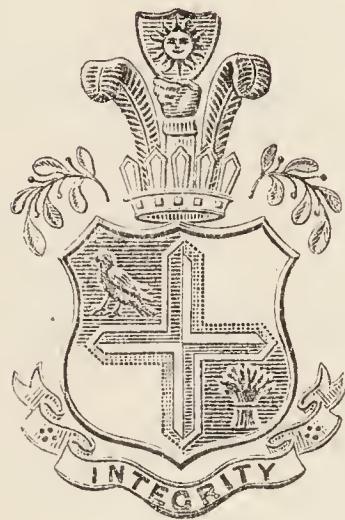


# *Borough of Dukinfield.*

BOWN,

MAYOR.



***Annual Reports***  
OF THE  
***Medical Officer of Health***  
***(Dr. J. R. S. PARK),***  
AND THE  
***Borough***  
***Sanitary Inspector***  
***(G. H. TAYLOR, F.I.H.),***  
***FOR THE YEAR 1919.***

ASHTON-UNDER-LYNE

GREEN, SON & MILLS, PRINTERS, MINERVA WORKS.

## HEALTH COMMITTEE.

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*Chairman :*

ALDERMAN BOWN.

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Alderman BANCROFT (Deputy).

Alderman AVISON.

Alderman DEAN.

Councillor ASHWORTH.

Councillor BENSON.

Councillor BRADLEY.

Councillor BROOKS.

Councillor DICKENSON.

Councillor HARRISON.

Councillor KAY.

Councillor JACKSON.

Councillor TEMPLE.

Councillor WEBB.

Councillor WHITEHEAD.

# Report.



## DUKINFIELD.

*To the Chairman and Gentlemen of the Health Committee.*

GENTLEMEN,

I have the honour of presenting to you my Twenty-Eighth Annual Report on the health and sanitary condition of the Borough of Dukinfield during the year 1919, together with the usual tabular statements of births, sickness, and mortality occurring in the town during this period.

The special attention of the Health Committee has been taken up again during the year by several important matters, which have added materially to the work and responsibility of the Department:—

The Housing (Town Planning) Act, 1909.

The Epidemic of Scarlet Fever.

The Compulsory Notification of Influenza, Pneumonia, Malaria,  
&c.

The duties, clerical and otherwise, which have been added year by year to the officials of your Committee, have urgently demanded further assistance. It is impossible for the Inspector to be attending to his duties as inspector and to be doing clerical work in the office at the same time. These duties have been somewhat relieved by the appointment of a foreman in the Cleansing Department.

Rather than summarise these matters, I leave the Report in your hands, hoping that each may find in it not only the information which he wants, but also suggestions as to the needs of the Borough, and the stimulus required to promote the physical and moral well-being of the inhabitants.

It may be remarked that certain extracts from former reports are introduced to make each report complete in itself, and for the information of the Ministry of Health and the Cheshire County Council, to whom copies are required to be sent.

## PHYSICAL FEATURES.

Dukinfield is situated on the left bank of the river Tame, a tributary of the Mersey. The Central and West Wards are bounded by the river, the East Ward, the most elevated part of the district, being some considerable distance from it.

The river is 279 feet above the sea level, but at Hough Hill the height is about 700 feet. The centre of the town is fairly well populated, but other districts, and more particularly the East, consist of farm land and open spaces, so that Dukinfield, although to a large extent a manufacturing town, is in part rural, and finds employment for some milk farmers. The sub-soil is in some places a loamy clay and in others sandstone, and the outcrop the Permian system. Underneath there are the coal measures. Although at the present moment no coal pits are working, for many years coal mining was a very important industry in the district.

### SOCIAL CONDITIONS.

The chief occupations of the inhabitants are—cotton manufacture (both spinning and weaving), engineering, boiler making, electric accumulator works, soap works, dye works, rope manufacturing, carriage and wagon works, and one brewery. With one exception, none of these industries is specially injurious to the health of the workers, who, as a rule, are a fairly healthy class of men and women. The rateable value of the town is £81,008, and the amount of Poor Law out-relief for the year was £1027 8s. 3d.

THE DISTRICT INFIRMARY situated in the Borough of Ashton-under-Lyne, is well supported both by public and private charity, and many of the poor avail themselves of the benefits to be obtained from this excellent institution.

The local SICK-NURSING INSTITUTION is also supported by private charity, and the nurses' services are highly appreciated by the sick poor of the town. Two nurses are now employed in this deserving work.

### HOUSE ACCOMMODATION.

The house accommodation, owing to the scarcity of new buildings in recent years, is not sufficient. Much of the worst property has been demolished or remains unoccupied, and very few houses have been built to replace them. The majority of the people in the town belong to the working class, and from 1906 to 1911 excellent cottage houses were built, fitted with modern sanitary arrangements and conveniences, and with plenty of air space. No plans were submitted and passed for new houses during the years 1915 to 1919, compared with two in 1914, eight in 1913, and five in 1912, and compares unfavourably with previous years viz.:—30 in 1911, 40 in 1910, 50 in 1908, 61 in 1907, 61 in 1906, and 24 in 1905. In every case the drains are thoroughly tested by the Surveyor, and strict supervision is taken by him as regards structure and air space and fitness for habitation. No action has been taken under the "Housing

of the Working Classes, Act, 1900," as there are no common lodging houses in the district, but much work has been done under the Town Planning Act, for details of which see Inspector's Report appended.

### POPULATION, &c.

The question of population is always interesting, as, on several occasions the population of the town has been over-estimated, only to find out our mistake at the census. Our estimated population is 20,000, the census returns for 1911 being 19,426.

Dukinfield—A Local Board District in 1857, an Urban District Council in 1895—was incorporated in 1899, and consists of three Wards: Central, East and West.

My calculations have been based on a population of 20,000.

CENTRAL WARD, 7,030; EAST WARD, 7330; WEST WARD, 5,640. At the census of 1901 the returns showed a population of 18,929. In 1911 the returns were as below:—

	Inhabited	Houses			Population		
		Uninhabited			Males	Females	Total
		In Occupa- tion	Not in Occupa- tion	Build- ing			
Dukinfield Municipal Borough	4628	147	264	22	9148	10,278	19,426
West Ward .....	1302	39	103	9	2690	2382	5572
Central Ward ....	1645	58	93	0	3207	3621	6828
East Ward .....	1681	60	68	13	3251	3775	7026

In July, 1919, the following was the number of inhabited and empty houses in the Borough:—

	Number of Houses		
	Inhabited	Empty	Total
Central Ward .....	1647	4	1651
East Ward .....	1743	2	1745
West Ward .....	1372	1	1373
Total .....	4762	7	4769

If we compare this with the years from 1906 we find:—

	Inhabited	Empty	Number of Houses
			Total
1906 .....	4464	126	4590
1907 .....	4513	76	4589
1908 .....	4594	80	4674
1909 .....	4592	84	4676
1910 .....	4599	88	4687
1911 .....	4655	60	4715
1912 .....	4680	82	4762
1913 .....	4690	67	4757
1914 .....	4730	34	4764
1915 .....	4694	65	4759

So that although the total increase of houses since 1901 is only 282, many of the older houses having been closed and demolished—the total number of inhabited houses has increased by 536.

Taking the population as at the Census of 1901 to be 4·48 per occupied house, and as 4·19 in 1911, the following would be the result:—

#### POPULATION.

	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
Central..	7338	7335	7257	7177	6854	6829	6800	6967	6812	....	....	....	6900
East ....	7033	7361	7420	7504	7152	7160	7193	7246	7248	....	....	....	7303
West ...	5846	5895	5895	5923	5496	5818	5855	5876	5616	....	....	....	5748
	—	—	—	—	—	—	—	—	—	—	—	—	—
Total..	20217	20591	20572	20604	19502	19807	19848	20119	19676	....	....	....	19951

The Urban Sanitary District contains an area of 1,405 acres, and shows a mean density of 14·2 per acre.

The following table, kindly supplied me by Mr. Weild, Education Secretary, shows how the number of children on the books at the various Schools in the town has decreased year after year from 1901 to 1906 from 3,564 to 3,171; and for the first time in 1907 there was a slight increase on the previous year, which was maintained in 1908. This is a question which, of course, affects the population, and is in turn affected by the diminishing Birth Rate in Dukinfield as in the rest of the country. In 1909 the number of children attending school showed a decrease of 74 on the previous year; a further decrease of 59 in 1910, of 74 in 1911, and of 384 in the ten years 1901 to 1911. However, 1912 shows a slight increase of 48, 1913 a decrease of 38, and 1914 an increase of 23. This year's figures, 3343, are the highest since the year 1908.

DUKINFIELD BOROUGH EDUCATION COMMITTEE.  
NUMBER OF CHILDREN ON THE BOOKS.

	December.			June		
	Infants.	Mixed.	Total.	Infants.	Mixed.	Total.
1906	951	2220	3171	..	1038	2158
1907	979	2382	3361	..	1123	2258
1908	1009	2378	3387	..	1099	2263
1909	1047	2266	3313	..	1116	2177
1910	1052	2202	3254	..	1235	2053
1911	1075	2105	3180	..	1209	2017
1912	1102	2126	3228	..	1267	1969
1913	1050	2140	3190	..	1185	1995
1914	1093	2120	3213	..	1165	1956
1915	1052	2113	3165	..	1202	1941
1919	1072	2271	3343	..	1189	2063
						3252

Owing to prevalence of Scarlet Fever and Measles during part of the year the attendance was somewhat affected.

### OVERCROWDING.

The average inhabitants per house occupied was only 4.19 in Census 1911 compared with 4.48 in 1901. Many cases of overcrowding due to insufficient house accommodation have been reported during the year. We have a complete list of four-roomed houses where eight and upwards are living, and the Inspector is very assiduous in tactfully altering matters where practicable.

### DWELLINGS OF THE POORER CLASSES.

We have a list of back to back houses, and the worst class of property is kept under careful and periodical inspection, and improvements and alterations are insisted upon being done when necessary. Overcrowding is carefully watched, and the condition of the poorer and neglected children reported upon to the Inspector of the Prevention of Cruelty to Children Society.

### WATER SUPPLY.

The domestic water in Dukinfield is excellent in quality and abundant in quantity. During the dry summer of 1911 there was no shortage. Dukinfield is joint owner of the Waterworks in the Swineshaw and Chew Valleys, together with the Boroughs of Ashton-under-Lyne, Stalybridge and Mossley. The present capacity of the reservoirs owned by the Joint Waterworks Committee is about 1,100 million gallons. The water, at present, comes from the wells, springs, and streams in the Swineshaw Valley, and is free from any risk of pollution. The water is soft, but since the year 1912 the whole of the domestic supply of water

for this district has been filtered and treated. The method of treatment is carried out on the most modern scientific principles. Two filter houses have been opened at Swineshaw and Chew Valley respectively.

I am indebted to Mr. Raddin, the Engineer and Manager of the District Waterworks for the following information.

### SOURCE OF SUPPLY.

The water supplied to the Districts is obtained from upland gathering grounds lying to the North-east of Ashton-under-Lyne, and situated in the Pennine Range of hills some five to six miles from that town. The following Table No. 2 gives full particulars of the gathering grounds, the reservoirs controlling same, and the storage capacity, &c., of each reservoir.

#### CATCHMENT AREAS, RESERVOIRS, AND STORAGE CAPACITY.

Name of Reservoir.	Gathering Ground	Top water level above ordnance datum.	Max. depth when full.	Capacity when full.	Area of top water.	Holding Capacity per acre of top water
	Acres.	Feet.	Feet.	Gallons.	Acres.	Gallons.
<b>IMPOUNDING RESERVOIRS</b>						
*Chew Valley.....	1,730	1,600	72	206,000,000	39.000	5,282,000
Higher Swineshaw		957	53	168,908,000	26.176	
Lower Swineshaw		871	33	55,500,000	12.798	
Brushes .....	1,300	649	44	52,165,000	8.068	6,472,000
*Walker Wood ..		588	61	202,084,000	27.027	7,477,000
Greenfield .....		892	62	101,686,000	12.456	8,163,000
Yeoman Hey ....	1,170	768	65	205,596,000	26.731	7,691,000
<b>SERVICE RESERVOIRS</b>						
Knott Hill .....		589	44	64,000,000	14.021	4,564,000
Dukinfield No. 1 ..		491	24	17,500,000	3.169	5,552,000
Dukinfield No. 2 ..		491	24	17,500,000	2.977	5,878,000
Totals..	4,200			1,090,939,000		

\* Compensation only.

### RIVERS AND STREAMS.

The River Tame separates the two towns of Dukinfield and

Ashton-under-Lyne. No pollution enters the river directly from works or otherwise in the town, as the sewage is first of all treated at Bradley Hurst Farm, and filtered before being discharged into the river.

## SEWERAGE DISPOSAL.

The sewerage system of the district, so far as the sewers themselves are concerned, is very efficiently and extensively carried out, everything being constructed according to a sewerage plan, having Bradley Hurst as the outlet. The sewerage is conveyed by means of a high and low-level sewer, and is treated by chemical precipitation with filtration, and passes through the land into the river. The plot of land at Bradley Hurst is 63 acres in extent. Over 12,000 tons of sludge are sent over per annum from the sewerage. The sewers are ventilated at the manholes, and are regularly flushed, more especially in dry weather. The following extensions and alterations to the Sewerage Works have been completed:—(1) Five circular filters, 84 feet in diameter by 7 feet deep. (2) One rectangular precipitation tank, with a holding capacity of 600,000 gallons. (3) Two storm tanks, each with a capacity of 300,000 gallons. (4) Two detritus tanks, with automatic screens driven by electric motor. It is also proposed not only to light the place with electricity, but also to use it for pumping purposes.

House drainage is also carefully attended to, and personal visits are paid to the houses to see as to the proper trapping of drains and the condition of the slop-stone pipes.

The condition of the river Tame is, therefore, considerably better as regards pollution, owing to the time and money spent upon the purification of sewerage by the various localities on its bank, as no sewage now enters the river from any of these districts unless previously treated.

## CLOSET ACCOMMODATION.

At present there are four systems of closets, viz.: Ashpit Privies, Pails, Automatic Flush Closets, and Fresh-water Closets. The Committee have advocated a steady substitution of water carriage for the two first systems just mentioned. Wherever practicable, fresh-water closets are put in rather than the automatic flush. There is no doubt if the annual charges for water supply (10s. per closet) were less, it would hasten materially the number of conversions. Thirty-three closets have been converted during the year. The intention is, where possible, to carry out the principle of ONE HOUSE ONE CLOSET.

## SCAVENGING.

This department is under the supervision of a foreman recently appointed, and is divided into three sections:—

- (1) House refuse, which is removed during the day time.
- (2) Privies, Pail Closets, etc., which are also emptied during the day time.
- (3) Street Scavenging, the administration of which is carried out by the Health Committee.

## SANITARY INSPECTION OF DISTRICT.

This includes the following, under Article xx. (10) of Local Government Board Order, details of which will be found in the Inspector's Report:—

Inspection of dwelling-houses under Town Planning Act.	
„ „ „	Public Health Act, 1875.
„ Schools.	
„ Factories, Workshops and Bakehouses.	
„ Cowsheds, Dairies and Milk Shops (1885 and 1899).	
„ Milk and Cream Regulations (1912 and 1917).	
„ Milk (Mothers and Children), 1918. Other Foods.	
„ Ice-cream Premises.	
„ Fried-fish Shops.	
„ Slaughter-houses.	
„ Offensive Trades.	
„ Offensive Accumulations.	
„ Drains and Sewers.	
„ Contagious Diseases Animals Act.	
„ Miscellaneous.	

## DAIRIES, COWSHEDS AND MILKSHOPS.

The Tuberculosis Order, 1913 (Dairies), necessitates the inspection of cattle and milk for Tuberculosis. No cases during the year have come under the notice of the Authority.

Inspections of the various dairies and cowsheds and milkshops are regularly carried out. In some cases there is insufficient air space, and in many cases the lighting and ventilation could be improved, but these matters are receiving the attention of landlord and tenant. Progress has been interfered with owing to the war.

In every case the dairies and utensils are kept scrupulously clean.

## DAY SCHOOLS.

There are nine Schools in the town—three Provided and six Non-Provided Schools. These are all in a sanitary condition, and afford accommodation for the children of the Borough.

The children are periodically examined by the School Medical Officer.

An epidemic of Scarlet Fever, together with Measles, affected the attendance during the year. There was no necessity, however, to close the Schools.

## INFECTIOUS DISEASES.

We have arrangements with the Hyde Hospital Authorities for four beds, two for smallpox and two for other infectious cases, but we have never had any difficulty in arranging for more cases to be admitted. The Hyde Fever Hospital has beds quite sufficient to allow of the treatment of all the infectious cases we are likely to send to Hospital. All our smallpox cases are sent to Hospital, and other infectious cases are also sent at the discretion of the Sanitary Authority. Cases of Typhoid Fever and of Scarlet Fever were sent to Hospital during the year.

We use the disinfecting apparatus at the Hyde Hospital to disinfect bedding, clothing, etc., and the disinfecting baths there when required.

During the year 222 cases of Infectious Diseases have been notified, and, including Tuberculosis, 269 cases in all.

The following are the notifications for the past 14 years:—

1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
152	217	184	216	114	81	43	138	188	69	369	456	261	269

(\*Including Tuberculosis and Measles.)

The notifications of Scarlet Fever during the past 14 years are as follows:—

1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
95	169	112	147	52	26	16	105	143	34	25	18	16	100

There were three cases of Typhoid Fever notified during the year. As compared with previous years:—

1906	1907	1908	1909	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
25	10	27	19	24	10	6	13	6	8	9	13	5	4

The death rate from these diseases per cent of cases notified was :—

Disease	Cases	Deaths	Rate per cent.
Smallpox .....	0	0	0
Typhoid .....	4	1	25
Scarlet .....	111	3	2.7
Diphtheria .....	5	1	20
Puerperal .....	1	1	100

NOTIFICATIONS OF INFECTIOUS DISEASES.

1919	Disease	Total											
		Fever			Trenege			Pneumonia			Dysentery		
January ..	Smallpox	0	0	0	0	0	0	0	0	0	0	0	0
February ..	Typhoid	1	0	0	0	0	0	0	0	0	0	0	0
March .....	Scarlet	0	1	0	0	0	0	0	0	0	0	0	0
April .....	Diphtheria	0	7	0	0	0	0	0	0	0	0	0	0
May .....	Smallpox	0	8	0	0	0	0	0	0	0	0	0	0
June .....	Typhoid	0	13	0	0	0	0	0	0	0	0	0	0
July .....	Scarlet	0	4	0	0	0	0	0	0	0	0	0	0
August .....	Diphtheria	0	1	0	0	0	0	0	0	0	0	0	0
September ..	Smallpox	1	3	0	0	0	0	0	0	0	0	0	0
October ..	Typhoid	0	8	0	0	0	0	0	0	0	0	0	0
November ..	Scarlet	1	19	0	0	0	0	0	0	0	0	0	0
December ..	Smallpox	1	37	0	0	0	0	0	0	0	0	0	0
Total ..		4	111	0	5	10	11	0	23	32	30	2	5

No case of Poliomyelitis was notified. There were 37 cases of Pulmonary Tuberculosis, and 10 of other forms of that disease.

When an Infectious Disease is notified as occurring at any house, the Sanitary Inspector is instructed to act as follows:—

1.—To call as soon as possible at the house and get information as to—

- (a) Age of patient.
- (b) Source of infection.
- (c) Sanitary condition of house and surroundings.
- (d) Isolation (if any) at home or hospital.
- (e) Milk Supply.
- (f) School attended.

2.—To communicate at once with the master of the school at which any member of the household attends.

3.—To communicate also to the Librarian of the Free Library, so that no books may be lent out to the infectious house, and if any such books happen to be already in the house, they are to be destroyed or disinfected before they are returned to the Library.

4.—At the request of the medical attendant, to fumigate the sick room with the fumes from burning Sulphur or Formalin.

Disinfectants in solution and in powder are provided free by the Sanitary Authority on all occasions.

The houses are disinfected, the sick room cleaned thoroughly, and in many cases the walls are whitewashed.

TUBERCULOSIS is now added to the list of Infectious Diseases to be notified. Since the year 1914 Tuberculosis of all forms, not only Pulmonary, have to be notified in the usual way as an infectious disease.

In these cases the houses are inspected and disinfected, and instructions are given to the occupants as well as to the infected person. The sputum in suspicious cases is sent to the Public Health Laboratory, Manchester, and the County Bacteriologist. Cases are sent also to T. B. Dispensary at Hyde for examination and report, and necessary requisites are provided by the Council.

## INFECTIOUS DISEASES (NOTIFICATION) ACT, 1889.

This Act was adopted in November, 1892. The notification of Infectious Disease is now compulsory. The Infectious Diseases to which the Act applies are Smallpox, Cholera, Diphtheria, Membranous Croup, Erysipelas, Scarlet Fever, Typhus, Typhoid and Puerperal Fevers, Plague, Tuberculosis, Acute Poliomyelitis, Ophthalmia Neonatorum, and Cerebro-Spinal Meningitis; but

other Infectious Diseases may be added to the list, subject to the approval of the Local Government Board.

The following diseases have also been added to the list of Notifiable Diseases :—

- (1) Influenza—Pneumonia.
- (2) Pneumonia.
- (3) Dysentery
- (4) Malaria.
- (5) Trench Fever.
- (6) Encephalitis in various forms.

Measles, which has been a Notifiable Disease for several years, is now excluded.

### PUBLIC HEALTH ACTS (AMENDMENT ACT), 1907.

The adoption of part of this Act was recommended by the Health Committee. The following sections were those recommended for adoption: Parts 2 to 9 inclusive, and Section 95 of Part 10.

### THE PRIVATE STREET WORKS ACT, 1892.

This Act was adopted by the Council in October, 1896.

This Act allows the Council to make good any street not sewer'd, levelled, paved, metalled, flagged, or lighted to the satisfaction of the Authority, the expenses being apportioned on the premises fronting, etc., such street.

### THE FACTORY AND WORKSHOPS ACT, 1901.

This Act came into force on January 1st, 1902.

It necessitates the inspection of the various Factories and Workshops in the district, so far as sanitation and health are concerned.

It specially deals with underground bakehouses, and generally deals with the sanitation, air space, ventilation, closet accommodation, and fire escapes in Factories and Workshops.

### FOOD AND DRUGS ACT.

The inspection of Food and Drugs is carried out by the County Council, but, so far as I know personally, no prosecutions have taken place during the year.

### NOTIFICATION OF BIRTHS ACT.

This Act was adopted by the Council during the year 1914, and came into force in 1915.

## NUISANCES.

No legal proceedings have been taken during the year, the usual notices of the Sanitary Inspector being, as a rule, promptly complied with. Many nuisances, however, have been removed, as will be seen from the Inspector's Report.

## BACTERIOLOGICAL WORK.

In cases of Diphtheria, Typhoid Fever, Tuberculosis, and other Infectious Diseases, arrangements are made with the Pathological Laboratory, at Manchester, for examinations of specimens and reporting on the same. Advantage is taken of this by the Medical Practitioners in the district.

### BACTERIOLOGICAL EXAMINATIONS MADE DURING THE YEAR 1919.

#### A.

Month	Diphtheria		Typhoid Fever		Human Tuberculosis Sputum		Bovine Tuberculosis Milk	
	Total	+	Total	+	Total	+	Total	+
January ..	1	..	..	..	2	..	..	..
February ..	3	..	1	1	3	1	..	..
March ....	..	..	..	..	3	1	..	..
April.....	..	..	..	..	6	..	..	..
May .....	..	..	..	:	5	2	..	..
June.....	1	..	..	..	1	..	..	..
July .....	..	..	2	1	1	..	..	..
August....	..	..	..	..	9	4	..	..
September.	..	..	..	..	2	..	..	..
October ..	1	..	..	..	3	..	..	..
November.	..	..	1	..	4	1	..	..
December..	..	..	..	..	2	..	..	..
—	—	—	—	—	—	—	—	—
Total ..	<b>6</b>	0	4	2	41	9	0	0

## VARIOUS INVESTIGATIONS.

#### B.

Date	Refer. No.	Nature	No. of Samples
11/8/19	L.B. 11089	Urine for Lead.	1

Total No. of Specimens in List **A** .. 51

Total No. of Specimens in List **B** .. 1

Grand Total of Specimens received 52

## ZYMOTIC DISEASES.

### I.—INFLUENZA.

There were 36 deaths from epidemic Influenza, compared with 54 in 1918, four in 1914, five in 1913, none in 1912 and 1911, four in 1910, two in 1909, seven in 1908, three in 1907, six in 1906, four in 1905, one in 1904, two in 1903, one in 1902, three in 1901, four in 1900, nine in 1899, two in 1898, and one in 1897. These deaths occurred during the first quarter of the year.

Influenza can now be classed among our usual zymotic diseases, and every year we have a more or less severe epidemic. Thirty-one cases were notified during the year.

This disease attacks persons of all ages and both sexes, sometimes to the extent of quarter or half of the population. The mortality from Influenza is usually slight, except among persons already weakened by disease, or pre-disposed to bronchitis or pneumonia, the increased death-rate during an epidemic of Influenza being undoubtedly due to respiratory diseases. Very little is known as to how this disease is produced. It is undoubtedly highly infectious, and the pathogenic microbe, a short bacillus, has been identified. Notification, isolation and disinfection are impracticable in cases of Influenza.

During periods of epidemic prevalence people should not congregate together, and public meetings should be avoided as much as possible. A regular life, plenty of open-air exercise, short of fatigue, a proper number of hours in bed, and regular meals of good, simple food are amongst the best prophylactics. The medical men are now supplied with serum for inoculation, and a number of V.A.D.'s have offered their services in case of an epidemic.

### 2.—SCARLET FEVER.

One hundred and eleven cases were notified, with three deaths, compared with no deaths in 1918, five in 1914, five in 1913, one in 1912, none in 1911, four in 1910, two in 1909, five in 1908, five in 1907, nine in 1906, three in 1905, six in 1904, three in 1903, six in 1902, seven in 1901, five in 1900, and six in 1899.

Scarlet Fever is for the most part an epidemic disease, which reaches its maximum in October, and its minimum, as a rule, about March, but in certain manufacturing towns in the North of England it is epidemic, and Dukinfield is one of these.

The attacks generally have been of a mild character. It is difficult to know how to eradicate a disease the nature and cause of which is so little understood to-day. Some years ago the late Medical Officer of Health for Salford predicted that Isolation

Hospitals would kill the disease after a very short period. In districts where these hospitals are used to a very large extent the disease still continues to thrive, and I am informed that it takes, when the cases are congregated together, as in a Fever Hospital a much more virulent and septic type. On the other hand, in our cottage homes isolation and disinfection are not only difficult but impossible. The problem, therefore, is a hard one indeed, and as yet it remains unsolved. I do believe, however, that strict attention by frequent visitation on the part of the Sanitary Officials to the infected houses will do some little to prevent the spread of the disease. My belief is that the Scarlet Fever Germ lives and thrives in this district, and is readily conveyed by infection. The germs, which are found in the bran-like scales given off by the skin, readily attach themselves to clothing, and the infection can be retained for months, long after the final case existed. So that isolation is not sufficient unless combined with thorough and careful destruction of the germs of infection in order to prevent the spread of the disease.

### HOME TREATMENT.

I was much struck on reading an article in a "British Medical Journal" in 1909, on the Home Treatment of Scarlet Fever. As the prophecies and anticipation as regards Hospital Treatment in these cases had not only not been realised, but had in no sense diminished the number of cases notified in any degree, I determined, with the consent of my Authority, to carry out in our district the treatment of Scarlet Fever cases at home on the lines suggested by Dr. Robert Milne, Medical Officer of Dr. Barnardo's Hospitals and Homes (the writer of the article).

Dr. Milne claims for his treatment, which he has successfully carried out for years (more especially in connection with Dr. Barnardo's Homes), prompt and early complete disinfection of the individual attacked by the disease. In his opinion his treatment makes it impossible for infection to spread from person to person by contact. The treatment consists of the rubbing well into the skin and hair of the infected person Oil of Eucalyptus, and the treatment of the throat by means of an efficient antiseptic application.

The oil of eucalyptus is used in preference to carbolic oil because the latter is apt to set up carbolic poisoning. I recommend as a throat application 10 per cent. carbolic oil, but the nature of the antiseptic used for the throat is left in the hands of the medical attendant.

Our method of procedure was as follows:—(1) We requested

the medical men of the town to meet the Sanitary Committee and discuss the treatment. This was well gone into, and they all agreed to assist the Authority in carrying it out as effectually as possible. Every pressure was laid on the importance of having a capable nurse to follow up each case and see that the treatment was carefully and effectually carried out. This suggestion, unfortunately, the Committee could not see their way at the time to adopt. Personally, I feel convinced that had this been done our results would have been even more satisfactory than they have proved to be.

(2) Instructions were given to the parents of infected children as to treatment. In most cases these instructions were, so far as we know, fairly satisfactorily carried out. At first we desired the children from the infected home to attend school; other parents, however, objected, and afterwards we decided that they should not be allowed to go to school.

**INSTRUCTIONS.**—The eucalyptus oil, which is provided free by the Corporation, to be used twice daily for the first four days, and afterwards once a day until the tenth day. The effect of this is to destroy the germs of infection on the skin right from the start of the disease, and NOT to wait until these germs have become disseminated, not only in the sick room and house, but also in the air outside the home. If this is done effectually there is no risk of the other members of the family living and sleeping even with the infected person, and the danger of spreading the disease is, of course, minimised. The throat treatment should be carried out also right from the commencement of the illness, very frequently for 24 hours; afterwards at the discretion of the medical attendant.

Lozenges containing formalin are satisfactory in disinfecting the mouth and throat.

We commenced our treatment in July, 1909, and have continued it, with satisfactory results up to the present time.

On grounds not only of efficiency, but of economy, I strongly advocate the continuance of this method of treating Scarlet Fever at home. Not only is the expense of maintaining a hospital for these cases saved, but if the treatment is really carried out from the onset of the disease strong disinfection and destruction of clothing, books, and other materials are unnecessary. In very few cases was disinfection of the house afterwards carried out, and then only at the wish of the people themselves. In most cases no disinfectants at all were used.

To summarise, the advantages of the treatment are:—

(1) Prevention of infection at the beginning of the

attack, not waiting till convalescence, when all the mischief has been done.

- (2) Children not compelled to leave home and go to hospital.
- (3) Cases milder. Throat infection less severe.
- (4) Duration of illness less. Average of cases being two to three weeks.
- (5) Children's education not interfered with, as there is no risk of infection being carried to school.
- (6) Infected children not to be kept in solitary confinement for a long period, six weeks or more, but allowed to mix with other children.
- (7) Mothers and children appreciate the treatment.
- (8) In short, it is Satisfactory, Efficient, Economical.

I am so satisfied with the results of this treatment during the past ten years that I recommend its continuance. At the same time, if the Council can see its way to provide a thoroughly reliable Nurse to see that it is properly carried out in every case, I am confident that the money will be well spent and the risk of duplicate cases nullified.

### 3.—DIPHTHERIA AND CROUP.

Five cases were notified, with four deaths, compared with four in 1918, two in 1914, one in 1913, one in 1912, six in 1911, two in 1910, two in 1909, eight in 1908, none in 1907, one in 1906, one in 1905, none in 1904, one in 1903, six in 1902, and four in 1901.

During the past year the death-rate from Diphtheria was 80 per cent, which is abnormally high. It is remarkable that during previous years the deaths from this fatal disease have been so few. I attribute this to the fact that in most cases Anti-Diphtheritic serum is used very early on in the illness, and with excellent results, as there is no reason to believe that the attacks themselves are less severe. The Sanitary Committee supply the serum free of charge in all cases.

The vitality of the micro-organisms of the disease is great, so much so that they can survive long periods of time when attached to or hidden away in clothing.

This disease is not a filth disease, and is not conveyed by water. It is undoubtedly connected with the prevalence of sore throats, and these throats seem to form a suitable resting-place for the germs. The disease is not spread readily by the air for long distances, and it is in all probability conveyed by actual infection from clothing and persons in crowded rooms or schools.

#### 4.—SMALLPOX.

No cases of Smallpox were notified during the year. With a well-vaccinated people in this disease hospitals are quite useless. In places where vaccination and re-vaccination are compulsory these cases are put in the ordinary general hospitals.

Of all the infectious diseases the only two where any specific treatment is of any avail are Smallpox and Diphtheria. In the case of Smallpox vaccination acts as a preventative, whilst in Diphtheria the Anti-Diphtheritic serum, when injected early in the course of the disease, works a speedy cure. The plan which is now adopted in Dukinfield in cases of Smallpox is perhaps unique, and is certainly effectual, and not so expensive as the old treatment of quarantine. It is as follows:—

- (1) The infected individual is sent to the hospital.
- (2) Each member of the infected house is vaccinated.
- (3) All members of the house are taken in a special conveyance to Hyde, where, while having a disinfected bath, their clothes are disinfected by means of a steam disinfector.
- (4) During their absence the house is thoroughly stoved, and the bedding, etc., destroyed.
- (5) They are then allowed to go to their several employments.

#### VACCINATION RETURNS.

Registrar's Office.

Return of births, successful vaccinations, insusceptible of vaccination, dead unvaccinated, postponements, removed from district, certificate of exemption, etc., from January 1st to December 31st in the Municipal Borough of Dukinfield.

Number of Births: Legitimate .....	335
Illegitimate .....	24
Insusceptible of Vaccination .....	0
Successful Vaccinations .....	44
Postponements by Medical Certificates .....	26
Removed from district .....	22
Conscientious Objections .....	236
Births unaccounted for .....	0
Dead Unvaccinated .....	31
Number of Births .....	359
Illegitimate Deaths under one year .....	2

I hereby certify this to be a true copy.

E. HEWITT, Registrar.

### 5.—WHOOPING COUGH.

Whooping Cough accounts for no deaths, compared with 14 in 1918, eleven in 1914, five in 1913, three in 1912, one in 1911, eleven in 1910, one in 1909, eight in 1908, seven in 1907, one in 1906, one in 1905, four in 1904, twelve in 1903, three in 1902, ten in 1901, fourteen in 1900, and nineteen in 1897.

Measles and Whooping Cough accounted for eleven out of thirteen deaths from infectious diseases in Dukinfield in 1914. There were no deaths from either Measles or Whooping Cough in 1919.

Next to Measles and Scarlet Fever, Whooping Cough is more fatal than any other disease in children, and in Dukinfield it is more fatal than Scarlet Fever. There is no doubt that in infants under one year it is the most fatal of all epidemic diseases. Concurrent epidemics of Measles and Whooping Cough are of frequent occurrence.

Whooping Cough is a typical epidemic disease, and occurs at short intervals of two or three years in outbreaks that affect a large proportion of susceptible persons. Owing to the absence of rash and the insidious onset of the symptoms, this disease is rarely detected until many days after it has reached its infectious stage. Preventive measures are, therefore, not very successful.

### 6.—TYPHOID FEVER.

Four cases of Typhoid Fever were notified, with one death, compared with one death in 1918, three in 1914, two in 1913, two in 1912, ten in 1911, seven in 1910, eight in 1909, one in 1908, one in 1907, six in 1906, seven in 1905, five in 1904, three in 1903, three in 1902, four in 1901, three in 1900, and seven in 1899.

This is a typical filth disease, and is conveyed by foul water, and milk, and even oysters. It is also said to be carried by flies, as in South Africa, and also in dust in India.

Improved sanitary conditions have lessened very considerably the death rate from Typhoid Fever, and the presence of Typhoid Fever in any district is always an indication of some insanitary condition or faulty water supply.

### 7.—MEASLES.

Measles accounted for no deaths, and in many respects the remarks I have made as regards Whooping Cough apply equally to Measles. Owing to its early infectiousness Measles spreads largely by the attendance of children at schools and other places of public gathering, who are merely sickening of them, and have not so far manifested the characteristic symptoms. This disease

is not a filth disease, and is not conveyed by water or milk. It is customary to close schools during Measles Epidemic, and in Dukinfield this has always been done with good results.

### 8.—DIARRHŒA.

Epidemic Diarrhœa accounts for no deaths, although five were due to gastro-enteritis, compared with three in 1918, six in 1914, seventeen in 1913, two in 1912, twenty-six in 1911, four in 1910, five in 1909, fifteen in 1908, seven in 1907, nine in 1906, seven in 1905, five in 1904, and seven in 1903. The death-rate from Diarrhœa was 0, as compared with 0.15 in 1918, 0.3 in 1914, 0.85 in 1913, 0.1 in 1912, 1.27 in 1911, 0.23 in 1910, 0.3 in 1909, 0.92 in 1908, 0.35 in 1907, 0.45 in 1906, 0.350 in 1905, 0.256 in 1904, 0.36 in 1903, 0.32 in 1902, 1.79 in 1901, and 0.47 in 1900.

We have a great deal to learn as to the cause of Epidemic Diarrhœa, which has had so much to do with the Infantile Mortality in our large towns. Among the many causes which affect Diarrhœa are:—

- (1) Density of population.
- (2) Density of buildings.
- (3) Want of light and ventilation.
- (4) Want of cleanliness.
- (5) Foul air from sewers, etc.
- (6) Drinking water.
- (7) Poverty.
- (8) Fermented food, including milk, and presence of flies.
- (9) Maternal neglect.
- (10) Damp, loose, or porous soil.
- (11) High temperature.
- (12) Dry seasons, with much dust.
- (13) Micro-organism in soil.
- (14) Locality, certain towns being particularly liable.

The total death-rate from the seven principal Zymotic Diseases was 0.25, compared with 1.2 in 1918, 0.9 in 1917, 1.05 in 1916, 0.7 in 1915, 2.15 in 1914, 1.5 in 1913, 1 in 1912, 2.7 in 1911, 1.5 in 1910, 1.17 in 1909, 2.95 in 1908, 1.43 in 1906, 1.43 in 1905, 2 in 1904, 1.68 in 1903, 1.89 in 1902, 2.78 in 1901, 3.41 in 1900, 2.52 in 1899, 4.5 in 1898, 4.45 in 1897.

### 9.—CANCER.

Cancer accounted for twenty-six deaths, compared with 19 in 1918, 21 in 1914, 12 in 1913, 13 in 1912, 18 in 1911, 17 in 1910, 8 in 1909, 17 in 1908, 10 in 1907, 5 in 1906, 5 in 1905, 10 in 1904, 16 in 1903, 11 in 1902, 10 in 1901, and 10 in 1900.

This disease, generally affecting people over 30 years of age, has caused an increased number of deaths of recent years, the explanation of which is not very satisfactory. Certain soils seem to favour production of this disease, and some think that it is associated with a micro-organism.

## 10.—TUBERCULOSIS.

Pulmonary Phthisis was responsible for sixteen deaths, and twelve more were due to other forms of Tuberculosis, compared with 35 in 1918, 29 in 1914, 27 in 1913, 25 in 1912, 31 in 1911, 20 in 1910, 28 in 1909, 25 in 1908, 33 in 1907, 25 in 1906, 11 in 1905, 18 in 1904, 25 in 1903, 19 in 1902, 24 in 1901, and 23 in 1899.

This is an undoubted infectious disease, and, owing to improved hygienic condition, the death-rate has considerably decreased in recent years.

### DEATH RATE.

1851-1860	.....	2.7
1861-1870	.....	2.5
1871-1880	.....	2.1
1881-1885	.....	1.8
1885-1890	.....	1.6

The death-rate for all forms of Tuberculosis in 1919 in Dukinfield is 1.4.

The tendency to Phthisis may be inherited, but whether heredity can do more than strongly predispose to the disease is less certain. It is remarkable how consumption clings, not only to certain localities, but also to certain houses, without any relation as to who the tenants may be. On receipt of primary notification the house is immediately visited and instructions left for the guidance of patient and household. Subsequent visits are paid, if necessary, and sputum is pathologically examined free of charge at the request of the medical attendant. Tuberculin is also supplied by the Local Authority. Patients are sent to Sanatoria by the Insurance Authority at Chester, and home treatment is carried on by the medical attendant, and patients visited by the County Tuberculosis Officer. The premises are disinfected by the Sanitary Authority, and disinfectants are regularly supplied.

## PNEUMONIA.

Pneumonia was responsible for twenty-seven deaths, and in addition other deaths from Pneumonia were complications of Influenza.

Lobar Pneumonia is an acute specific infection associated with

consolidation of one or both lungs, and with symptoms of toxæmia, and usually due to the micrococcus lanceolatus of Fränkel. It is a most common affection, occurs frequently in winter and spring, and attacks all ages, though it is more frequent before the age of ten, and between twenty and fifty, than at other ages. Males are more often attacked than females, and there is a strong tendency to recurrence. Amongst the more common exciting causes are draughts, intemperance, exposure to inclement weather, or irritating gases. Pneumonia sometimes directly follows blows upon the chest. It frequently occurs in epidemic form, and its spread is favoured by insanitary conditions. It is most fatal in the aged and those who are debilitated by alcohol or otherwise. In 1918 there were twenty-nine deaths from Pneumonia, and it is a remarkable fact that in 1919 twenty-five per cent. of the total Infantile Mortality was due to Pneumonia, and in the first quarter of the year.

### WAR DISEASES.

Thirty-two cases of Malaria, two of Dysentry, and two of Trench Fever were notified during the year.

Most of these cases have been sent into hospital by the Local Pensions Committee, and treated there.

The cases of Trench Fever were fully enquired into, and detailed reports sent on to the Ministry of Health.

### VENEREAL DISEASES.

These cases are treated at the Ashton-under-Lyne Infirmary in connection with the Cheshire County Council scheme. Salvarsan or substitutes are supplied, on request from the County Medical Officer of Health, to those medical practitioners who are willing to undertake the treatment.

### INFANTILE MORTALITY.

There were twenty-nine deaths of children under one year, the average for the previous five years being fifty. The mortality per thousand births registered was 82, compared with 92 in 1918, 122 in 1917, 105 in 1916, 132 in 1915, 149 in 1914, 139 in 1913, 145 in 1912, 206 in 1911, 163 in 1910, 157 in 1909, 214 in 1908, 221 in 1907, 176 in 1906, 196 in 1905, 198 in 1904, 188 in 1903, 182 in 1902, and 275 in 1901. The average for the previous five years was 120.

Since 1901, when the Infantile Mortality in Dukinfield reached its high-water mark of 275, there has been a considerable decline. This year we are well below the average for the previous ten years. The average for the years 1897 to 1901 (inclusive) was 239.

The matter has always been well thought out by your Committee. Special treatment in the way of feeding young children by means of sterilized modified milk has in past years been adopted in order to reduce the mortality. For each monthly meeting a special report is prepared as the result of enquiries relative to the death of infants under twelve months. It is difficult to explain the high Infantile Mortality in these manufacturing districts, and as yet I know of no definite cause as the result of these statistics.

### MATERNITY AND CHILD WELFARE.

The Inspection of Midwives is under the supervision and control of the County Council.

A Maternity and Child Welfare Centre has been opened in the district under the supervision of the County Council, but worked by a Local Committee. This Centre is opened two days per week; dried milk—e.g., "Glaxo" and "Cow and Gate"—together with Virol and sugar, are supplied to the mothers and children. The medical practitioners in the town officiate periodically, in rotation. There are over 400 members on the register, with an average attendance of over 90.

### PUERPERAL FEVER.

One case of Puerperal Fever was notified, which terminated fatally. In these cases the midwife is sent to the Hyde Fever Hospital, where not only herself, but her clothes and bag and contents are disinfected, and she is not allowed to attend any other case until satisfactory evidence is given that this has been effectually carried out.

### OPHTHALMIA NEONATORUM.

Eleven cases were notified, and in every case prompt treatment resulted in recovery. In no case was there any permanent injury.

### MEASLES.

Although ten cases of Measles were notified occurring among children under five years of age, there were no deaths.

### EPIDEMIC DIARRHŒA.

There were no deaths from Diarrhœa in young children, although five were certified as due to gastro-enteritis.

### WHOOPING COUGH.

No deaths were attributed as the result of this disease.

## POLIOMYELITIS.

So far as I know there was no case of poliomyelitis during the year.

In May, 1913, a deputation was appointed by your Committee to visit the towns of Huddersfield, Brighouse, Halifax and Keighley (1) to inquire as to the methods adopted in these towns to reduce Infantile Mortality, and (2) to confer with their representatives on general sanitary administration.

As the result of these interviews the deputation made the following recommendations to the Committee.

- (1) The adoption of the Notification of Births Act, 1907.
- (2) The appointment of a lady health visitor, with diplomas of the Sanitary Institute and Certificate as School Nurse, and to be under the supervision of the Medical Officer of Health. Her duties to be as follows:—
  - (a) Visiting infants.
  - (b) Visiting tuberculosis cases.
  - (c) Inspecting midwives.
  - (d) Inspecting Factories and Workshops (female labour).
  - (e) General duties of School Nurse.

This administration is now carried out by the County Council.

The following table classifies the causes of deaths of infants during the year:—

Congenital.	Infectious.	Gastric.
Premature Births.... 6	Scarlet Fever.... 0	Enteritis ..... 4
Congenital Defects .. 1	Erysipelas ..... 0	Gastritis ..... 0
Atrophy ..... } 3	Measles ..... 0	Diarrhoea ..... 0
Debility ..... } 3	Whooping Cough. 0	
Marasmus ..... } 10	Diphtheria ..... 0	
	—	—
	0	4

Tubercular.	Other Causes.
Meningitis ..... 1	Rickets ..... 1
Tabes ..... 0	Convulsions .... 2
Other Tubercular Diseases.. 0	Bronchitis ..... 3
	Pneumonia .... 6
	Meningitis ..... 0
	Other Causes .... 2
—	—
1	14

Of these deaths 6 were under 1 week old.

..	..	8	..	2	..
..	..	9	..	3	..
..	..	10	..	1 month old.	
..	..	16	..	3	..
..	..	21	..	6	..
..	..	27	..	9	..
..	..	29	..	12	..

#### INFANTILE MORTALITY IN MONTHS.

	Central Ward	East Ward	West Ward	Whole District
January ....	0	0	0	0
February ..	666	100	666	368
March.....	100	40	200	133
April .....	0	111	250	111
May.....	100	0	0	55
June .....	91	0	0	40
July.....	55	0	0	33
August ....	0	142	200	97
September ..	0	0	500	53
October ....	0	0	0	0
November ..	38	250	375	142
December ..	42	71	0	45
Average..	91	59	180	82

#### BRIEF SUMMARY.

The BIRTH RATE, which in 1898 was 30.01, and has steadily decreased year by year, was 17.75, compared with 16.5 in 1918, 18.3 in 1917, 19.1 in 1916, 23.05 in 1915, 25.35 in 1914, 25.9 in 1913, 24.85 in 1912, 24.49 in 1911, 23.3 in 1910, 23.9 in 1909, 25.02 in 1908, and 26.6 in 1907.

The DEATH RATE is 12.95, compared with 15 in 1918, 11.1 in 1917, 12 in 1916, 15.25 in 1915, 14.75 in 1914, 13.05 in 1913, 13.8 in 1912, 15.4 in 1911, 13.3 in 1910, 15.12 in 1909, 15.9 in 1908, 19.6 in 1907, 14.77 in 1906, and 14.82 in 1905.

The INFANTILE MORTALITY is 82, compared with 92 in 1918, 123 in 1917, 105 in 1916, 132 in 1915, 149 in 1914, 139 in 1913, 145 in 1912, 206 in 1911, 163 in 1910, 157 in 1909, 214 in 1908, 221 in 1907, 176 in 1906, and 196 in 1905.

The ZYMATIC DEATH RATE is 0.25, compared with 1.2 in 1918, 0.9 in 1917, 1.05 in 1916, 0.7 in 1915, 2.15 in 1914, 1.5 in 1913, 1 in 1912, 2.7 in

1911, 1.5 in 1910, 1.17 in 1909, 2.19 in 1908, 2.95 in 1907, 1.43 in 1906, and 1.43 in 1905, and is the lowest recorded in the history of the Borough.

Appended to this Report are the Tables required by the Ministry of Health, together with the Inspector's Report of work done by him during the year.

I am, Gentlemen,

Your obedient servant,

J. R. S. PARK,

Medical Officer of Health.

TABLE I,

## BIRTHS.

Number....355}	Males.....179	
	Females ...176	Rate .....17.75

Natural Increase of Population for the year, 96

TABLE II.

## Number of Births and Rate—Monthly and Quarterly:—

Month		No.	Rate	Quarter
January	(4 weeks) .....	31	20.1	
February	4   ,, .....	19	12.35	Number 80
March	5   ,, .....	30	15.6	Rate 16.0
April	4   ,, .....	18	11.7	
May	4   ,, .....	18	11.7	Number 61
June	5   ,, .....	25	12.9	Rate 12.1
July	4   ,, .....	30	19.5	
August	4   ,, .....	31	20.1	Number 99
September	5   ,, .....	38	19.7	Rate 19.8
October	3   ,, .....	29	25.15	
November	5   ,, .....	42	21.84	Number 115
December	5   ,, .....	44	22.36	Rate 23.12

TABLE III.

## Birth Rate for the past ten years:—

1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
23.30	24.49	24.85	25.9	25.35	23.05	19.1	18.3	16.25	17.75

TABLE IV.

## DEATHS.

Number....259}	Males.....130	
	Females ..129	Death Rate..12.95
Number of Deaths under five years,	47	Rate ..... 2.35
Do.                   do.                   one year,	29	Rate ..... 1.45

This latter is equal to a rate of 82 per 1000 Births.

TABLE V.

## Number and Rate of Deaths—Monthly and Quarterly:—

Month		No.	Rate	Quarter
January	(4 weeks) .....	22	14.3	
February	4   ,, .....	32	20.8	Number 115
March	5   ,, .....	61	31.72	Rate 22.27
April	4   ,, .....	19	12.35	
May	4   ,, .....	10	6.5	Number 43
June	5   ,, .....	14	7.3	Rate 8.7
July	4   ,, .....	17	11.0	
August	4   ,, .....	9	5.85	Number 39
September	5   ,, .....	13	6.8	Rate 7.9
October	3   ,, .....	8	6.9	
November	5   ,, .....	34	17.68	Number 62
December	5   ,, .....	20	10.6	Rate 11.7

TABLE VI.

Death Rate for past ten years:—

1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
13.3	15.4	13.8	13.05	14.75	15.25	12	11.1	15	12.95

TABLE VII.

Number of Deaths and Death Rate in Districts—Monthly and Quarterly—

## CENTRAL WARD.

Month		No.	Rate	Quarter
January	(4 weeks).....	9	16.6	
February	4 ,,, .....	13	23.4	Number 45
March	5 ,,, .....	23	34.5	Rate 24.8
April	4 ,,, .....	10	18.4	
May	4 ,,, .....	7	12.7	Number 23
June	5 ,,, .....	6	8.8	Rate 13.3
July	4 ,,, .....	3	5.5	
August	4 ,,, .....	3	5.4	Number 9
September	5 ,,, .....	3	4.4	Rate 5.1
October	3 ,,, .....	4	9.8	
November	5 ,,, .....	6	8.7	Number 21
December	5 ,,, .....	11	16.2	Rate 11.5

## EAST WARD.

Month		No.	Rate	Quarter
January	(4 weeks).....	10	17.7	
February	4 ,,, .....	11	19.25	Number 39
March	5 ,,, .....	18	25.6	Rate 20.8
April	4 ,,, .....	5	8.9	
May	4 ,,, .....	2	3.3	Number 12
June	5 ,,, .....	5	7.1	Rate 6.4
July	4 ,,, .....	7	12.4	
August	4 ,,, .....	2	3.5	Number 15
September	5 ,,, .....	6	8.5	Rate 8.13
October	3 ,,, .....	3	7.3	
November	5 ,,, .....	12	17.09	Number 20
December	5 ,,, .....	5	7	Rate 10.4

## WEST WARD.

Month		No.	Rate	Quarter
January	(4 weeks).....	3	6.9	
February	4 ,,, .....	8	18.4	Number 31
March	5 ,,, .....	20	36.0	Rate 20.4
April	4 ,,, .....	4	9.2	
May	4 ,,, .....	1	2.3	Number 8
June	5 ,,, .....	3	5.4	Rate 5.5
July	4 ,,, .....	7	16.1	
August	4 ,,, .....	4	9.2	Number 15
September	5 ,,, .....	4	7.2	Rate 10.8
October	3 ,,, .....	1	3.07	
November	5 ,,, .....	16	29.6	Number 21
December	5 ,,, .....	4	6.8	Rate 13.16

TABLE VIII.

Number of Deaths and Death Rate of Children under five years of age in Districts—Monthly and Quarterly.

## CENTRAL WARD.

Month		No.	Rate	Quarter
January	(4 weeks).....	3	5.5	Number 13
February	4 ,,, .....	5	9.3	
March	5 ,,, .....	5	7.38	
April	4 ,,, .....	1	1.84	Number 5
May	4 ,,, .....	1	1.84	
June	5 ,,, .....	3	4.4	
July	4 ,,, .....	0	0	Number 1
August	4 ,,, .....	1	1.8	
September	5 ,,, .....	0	0	
October	3 ,,, .....	0	0	Number 2
November	5 ,,, .....	1	1.44	
December	5 ,,, .....	1	1.44	

## EAST WARD.

Month		No.	Rate	Quarter
January	(4 weeks).....	0	0	Number 6
February	4 ,,, .....	2	3.5	
March	5 ,,, .....	4	5.68	
April	4 ,,, .....	1	1.78	Number 2
May	4 ,,, .....	1	1.78	
June	5 ,,, .....	0	0	
July	4 ,,, .....	0	0	Number 2
August	4 ,,, .....	2	3.5	
September	5 ,,, .....	0	0	
October	3 ,,, .....	0	0	Number 3
November	5 ,,, .....	2	2.8	
December	5 ,,, .....	1	1.4	

## WEST WARD.

Month		No.	Rate	Quarter
January	(4 weeks).....	0	0	Number 5
February	4 ,,, .....	3	6.9	
March	5 ,,, .....	2	3.6	
April	4 ,,, .....	1	2.3	Number 1
May	4 ,,, .....	0	0	
June	5 ,,, .....	0	0	
July	4 ,,, .....	1	2.3	Number 4
August	4 ,,, .....	1	2.3	
September	5 ,,, .....	2	3.6	
October	3 ,,, .....	0	0	Number 3
November	5 ,,, .....	3	5.5	
December	5 ,,, .....	0	0	

TABLE IX.

Death Rate of Children under five years of age for past ten years:—

1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
5.5	7.6	5.45	5	6.5	4.8	3.2	3.15	3.85	2.35

TABLE X.

Number of Deaths and Death Rate of Children under one year in Districts—Monthly or Quarterly.

## CENTRAL WARD.

Month		No.	Rate	Quarter
January	(4 weeks) .....	0	0	
February	4 ,,, .....	4	7.3	Number 6
March	5 ,,, .....	2	2.93	Rate 3.4
April	4 ,,, .....	0	0	
May	4 ,,, .....	1	1.84	Number 3
June	5 ,,, .....	2	2.93	Rate 1.59
July	4 ,,, .....	0	0	
August	4 ,,, .....	0	0	Number 0
September	5 ,,, .....	0	0	Rate 0
October	3 ,,, .....	0	0	
November	5 ,,, .....	1	1.44	Number 2
December	5 ,,, .....	1	1.44	Rate 0.96

## EAST WARD.

Month		No.	Rate	Quarter
January	(4 weeks) .....	0	0	
February	4 ,,, .....	1	1.75	Number 2
March	5 ,,, .....	1	1.4	Rate 0.98
April	4 ,,, .....	1	1.75	
May	4 ,,, .....	0	0	Number 1
June	5 ,,, .....	0	0	Rate 0.58
July	4 ,,, .....	0	0	
August	4 ,,, .....	2	3.5	Number 2
September	5 ,,, .....	0	0	Rate 1.16
October	3 ,,, .....	0	0	
November	5 ,,, .....	2	2.8	Number 3
December	5 ,,, .....	1	1.4	Rate 1.4

## WEST WARD.

Month		No.	Rate	Quarter
January	(4 weeks) .....	0	0	
February	4 ,,, .....	2	4.6	Number 3
March	5 ,,, .....	1	1.8	Rate 2.13
April	4 ,,, .....	1	2.3	
May	4 ,,, .....	0	0	Number 1
June	5 ,,, .....	0	0	Rate 0.76
July	4 ,,, .....	0	0	
August	4 ,,, .....	1	2.3	Number 3
September	5 ,,, .....	2	3.6	Rate 1.93
October	3 ,,, .....	0	0	
November	5 ,,, .....	3	5.5	Number 3
December	5 ,,, .....	0	0	Rate 1.86

TABLE XI.

Death Rate of Children under one year for the past ten years:—

1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
3.8	5.1	3.6	3.6	3.8	3.05	2.15	2.25	1.5	1.45

TABLE XII

Number of Deaths from and Rate of Seven principal Zymotic Diseases in Months, &c.

<i>Month</i>		<i>No.</i>	<i>Rate</i>	<i>Quarter</i>
January	(4 weeks) .....	0	0	
February	4 ,,, .....	1	0.65	Number 1
March	5 ,,, .....	0	0	Rate 0.216
April	4 ,,, .....	1	0.65	
May	4 ,,, .....	0	0	Number 2
June	5 ,,, .....	1	0.65	Rate 0.432
July	4 ,,, .....	0	0	
August	4 ,,, .....	0	0	Number 0
September	5 ,,, .....	0	0	Rate 0
October	3 ,,, .....	1	0.86	
November	5 ,,, .....	0	0	Number 2
December	5 ,,, .....	1	0.52	Rate 0.46

TABLE XIII.

Number of Deaths from and Rate of Seven principal Zymotic Diseases in Districts, &c.

## CENTRAL WARD.

<i>Month</i>		<i>No.</i>	<i>Rate</i>	<i>Quarter</i>
January	(4 weeks) .....	0	0	
February	4 ,,, .....	0	0	Number 0
March	5 ,,, .....	0	0	Rate 0
April	4 ,,, .....	0	0	
May	4 ,,, .....	0	0	Number 0
June	5 ,,, .....	0	0	Rate 0
July	4 ,,, .....	0	0	
August	4 ,,, .....	0	0	Number 0
September	5 ,,, .....	0	0	Rate 0
October	3 ,,, .....	1	2.45	
November	5 ,,, .....	0	0	Number 1
December	5 ,,, .....	0	0	Rate 0.816

## EAST WARD.

<i>Month</i>		<i>No.</i>	<i>Rate</i>	<i>Quarter</i>
January	(4 weeks) .....	0	0	
February	4 ,,, .....	1	1.75	Number 1
March	5 ,,, .....	0	0	Rate 0.58
April	4 ,,, .....	0	0	
May	4 ,,, .....	0	0	Number 1
June	5 ,,, .....	1	1.42	Rate 0.47
July	4 ,,, .....	0	0	
August	4 ,,, .....	0	0	Number 0
September	5 ,,, .....	0	0	Rate 0
October	3 ,,, .....	0	0	
November	5 ,,, .....	0	0	Number 0
December	5 ,,, .....	0	0	Rate 0

## WEST WARD.

<i>Month</i>		<i>No.</i>	<i>Rate</i>	<i>Quarter</i>
January	(4 weeks) .....	0	0	
February	4 ,.. .....	0	0	Number 0
March	5 ,.. .....	0	0	Rate 0
April	4 ,.. .....	1	2.3	
May	4 ,.. .....	0	0	Number 1
June	5 ,.. .....	0	0	Rate 0.76
July	4 ,.. .....	0	0	
August	4 ,.. .....	0	0	Number 0
September	5 ,.. .....	0	0	Rate 0
October	3 ,.. .....	0	0	
November	5 ,.. .....	0	0	Number 1
December	5 ,.. .....	1	1.7	Rate 0.56

## TABLE XIV.

Deaths from Seven principal Zymotic Diseases, *separately* in Quarters:—

<i>Disease</i>	<i>1st</i> <i>Qr.</i>	<i>2nd</i> <i>Qr.</i>	<i>3rd</i> <i>Qr.</i>	<i>4th</i> <i>Qr.</i>	<i>Year</i>
Smallpox .....	0	0	0	0	0
Measles .....	0	0	0	0	0
Scarlet Fever .....	0	1	0	2	3
Diphtheria and Croup..	0	1	0	0	1
Whooping Cough ....	0	0	0	0	0
Fevers .....	1	0	0	0	1
Diarrhoea .....	0	0	0	0	0
—	—	—	—	—	—
Total .....	1	2	0	2	5

## TABLE XV.

Deaths from Seven principal Zymotic Diseases, *separately* in Districts:—

## CENTRAL WARD.

<i>Disease</i>	<i>1st</i> <i>Qr.</i>	<i>2nd</i> <i>Qr.</i>	<i>3rd</i> <i>Qr.</i>	<i>4th</i> <i>Qr.</i>	<i>Year</i>
Smallpox .....	0	0	0	0	0
Measles .....	0	0	0	0	0
Scarlet Fever .....	0	0	0	1	1
Diphtheria and Croup..	0	0	0	0	0
Whooping Cough ....	0	0	0	0	0
Fevers .....	0	0	0	0	0
Diarrhoea .....	0	0	0	0	0
—	—	—	—	—	—
Total .....	0	0	0	1	1

## EAST WARD.

Disease	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Year
Smallpox .....	0	0	0	0	0
Measles .....	0	0	0	0	0
Scarlet Fever .....	0	0	0	0	0
Diphtheria and Croup..	0	1	0	0	1
Whooping Cough ....	0	0	0	0	0
Fevers .....	1	0	0	0	1
Diarrhœa .....	0	0	0	0	0
	—	—	—	—	—
Total .....	1	1	0	0	2

## WEST WARD.

Disease	1st Qr.	2nd Qr.	3rd Qr.	4th Qr.	Year
Smallpox .....	0	0	0	0	0
Measles .....	0	0	0	0	0
Scarlet Fever .....	0	1	0	1	2
Diphtheria .....	0	0	0	0	0
Whooping Cough ....	0	0	0	0	0
Fevers .....	0	0	0	0	0
Diarrhœa .....	0	0	0	0	0
	—	—	—	—	—
Total .....	0	1	0	1	2

TABLE XVI.

Showing Deaths from Zymotic Diseases as they occurred Monthly:—

	Smallpox	Measles	Scarlet Fever	Diphtheria & Croup	Whooping Cough	Fevers	Diarrhœa
Jan. ..	0	0	0	0	0	0	0
Feb. ..	0	0	0	0	0	1	0
Mar. ..	0	0	0	0	0	0	0
April ..	0	0	1	0	0	0	0
May ..	0	0	0	0	0	0	0
June ..	0	0	0	1	0	0	0
July ..	0	0	0	0	0	0	0
August. .	0	0	0	0	0	0	0
Sept. ..	0	0	0	0	0	0	0
Oct. ..	0	0	1	0	0	0	0
Nov. ..	0	0	0	0	0	0	0
Dec. ..	0	0	1	0	0	0	0
	—	—	—	—	—	—	—
Total ..	0	0	3	1	0	1	0

TABLE XVII.

Showing Deaths from Zymotic Diseases as they occurred monthly in Districts:—

## CENTRAL WARD.

	Smallpox	Measles	Scarlet Fever	Diphtheria & Croup	Whooping Cough	Fever	Diarrhoea
Jan. ..	0	0	0	0	0	0	0
Feb. ..	0	0	0	0	0	0	0
Mar. ..	0	0	0	0	0	0	0
April ..	0	0	0	0	0	0	0
May ..	0	0	0	0	0	0	0
June ..	0	0	0	0	0	0	0
July ..	0	0	0	0	0	0	0
August. .	0	0	0	0	0	0	0
Sept. ..	0	0	0	0	0	0	0
Oct. ..	0	0	1	0	0	0	0
Nov. ..	0	0	0	0	0	0	0
Dec. ..	0	0	0	0	0	0	0
—	—	—	—	—	—	—	—
Total ..	0	0	1	0	0	0	0

## EAST WARD.

	Smallpox	Measles	Scarlet Fever	Diphtheria & Croup	Whooping Cough	Fever	Diarrhoea
Jan. ..	0	0	0	0	0	0	0
Feb. ..	0	0	0	0	0	1	0
Mar. ..	0	0	0	0	0	0	0
April ..	0	0	0	0	0	0	0
May ..	0	0	0	0	0	0	0
June ..	0	0	0	1	0	0	0
July ..	0	0	0	0	0	0	0
August. .	0	0	0	0	0	0	0
Sept. ..	0	0	0	0	0	0	0
Oct. ..	0	0	0	0	0	0	0
Nov. ..	0	0	0	0	0	0	0
Dec. ..	0	0	0	0	0	0	0
—	—	—	—	—	—	—	—
Total ..	0	0	0	1	0	1	0

## WEST WARD.

	Smallpox	Measles	Scarlet Fever	Diphtheria & Croup	Whooping Cough	Fevers	Diarrhoea
Jan. . .	0	0	0	0	0	0	0
Feb. . .	0	0	0	0	0	0	0
Mar. . .	0	0	0	0	0	0	0
April . .	0	0	1	0	0	0	0
May . .	0	0	0	0	0	0	0
June . .	0	0	0	0	0	0	0
July . .	0	0	0	0	0	0	0
August. .	0	0	0	0	0	0	0
Sept. . .	0	0	0	0	0	0	0
Oct. . .	0	0	0	0	0	0	0
Nov. . .	0	0	0	0	0	0	0
Dec. . .	0	0	1	0	0	0	0
—	—	—	—	—	—	—	—
	0	0	2	0	0	0	0

TABLE XVIII.

Returns of Deaths, Death Rates, &c., from the Seven principal Zymotic Diseases for the past ten years:—

	1910	1911	1912	1913	1914	1915	1916	1917	1918	1919
Smallpox.....	0	0	0	0	0	0	0	0	0	0
Measles .....	3	23	11	1	22	5	9	8	2	0
Scarlet Fever.....	4	0	1	5	3	0	0	0	0	3
Diphtheria & Croup	2	4	1	1	2	3	2	0	4	1
Whooping Cough ..	11	1	3	5	7	0	5	0	14	0
Fevers .....	7	1	2	1	3	2	2	3	1	1
Diarrhoea .....	4	26	2	17	6	4	3	7	3	0
—	—	—	—	—	—	—	—	—	—	—
Total ....	31	55	20	30	43	14	21	18	24	5
Deaths from other causes .....	242	261	256	230	256	291	219	204	276	254
—	—	—	—	—	—	—	—	—	—	—
Total ....	273	316	276	261	299	305	240	222	300	259

Death Rate from Seven principal Zymotic Diseases:—

1·5..2·7..1·0..1·5..2·15..0·7..1·05..0·9..1·2..0·25

Death Rate from other causes:—

11·8 12·7 12·8 11·5 12·8 14·5 10·95 10·2 13·8 12·7

Total Death Rate:—

13·3 15·4 13·8 13·05 14·95 15·25 12 11·1 15 12·95

TABLE XIX.  
DEATHS CLASSIFIED.

All causes (including deaths in Institutions) ..... 317

CLASSES.

I.—Zymotic Diseases .....	51
II.—Constitutional Diseases.....	53
III.—Local Diseases.....	150
IV.—Developmental Diseases .....	45
V.—Violent Deaths .....	13
VI.—Causes not specified, or undefined .....	5

ORDERS.

I.—1 Miasmic Diseases .....	46
2 Enteric Diseases .....	0
3 Dietic Diseases .....	5
4 Parasitic Diseases .....	0
II.—1 Diathetic Diseases.....	25
2 Tubercular Diseases .....	28
III.—1 Diseases of the Nervous System .....	39
2 Diseases of the Circulating System .....	30
3 Diseases of Respiratory System .....	61
4 Diseases of Digestive System .....	6
5 Diseases of the Urinary Organs .....	13
6 Diseases of Organs of Generation .....	0
7 Diseases of Organs of Locomotion .....	0
8 Diseases of Integumentary System .....	1
IV.—1 Developmental Diseases of Children .....	10
2 Developmental Diseases of Adults .....	1
3 Developmental Diseases of Old People .....	30
4 Diseases of Nutrition.....	4
V.—1 Accident or Negligence .....	13
2 Homicide .....	0
3 Suicide ..	1
VI.—Causes not specified .....	5

CLASS I.

Order 1— Chickenpox .....	0
Measles .....	0
Scarlet Fever.....	3
Diphtheria and Croup.....	4
Whooping Cough .....	0

Typhoid Fever .....	1
Septicaemia .....	0
Puerperal Fever .....	1
Diarrhœa .....	0
Rheumatism .....	0
Influenza .....	37
Erysipelas .....	0
Order 2—Syphilis .....	0
Order 3—Marasmus .....	4
Inanition of Infancy .....	0
Rickets .....	1
Order 4—Thrush .....	0

## CLASS II.

Order 1—Cancer.....	25
Gangrene .....	0
Anæmia .....	0
Order 2—Tabes Mesenterica .....	0
Phthisis .....	12
Tubercular Meningitis.....	5
Tuberculosis, other forms .....	11

## CLASS III.

Order 1—Paralysis.....	2
Apoplexy.....	24
Convulsions .....	8
Meningitis .....	2
Epilepsy .....	1
Brain Diseases, not distinguished.....	2
Order 2—Heart Diseases .....	30
Blood Vessels.....	0
Order 3—Bronchitis.....	33
Laryngitis .....	0
Asthma .....	0
Pneumonia.....	27
Tonsilitis.....	0
Pleurisy .....	0
Lung Diseases, not distinguished.....	1
Order 4—Gastro-Enteritis .....	3
Obstruction of Bowels.....	0
Appendicitis .....	1
Peritonitis .....	2

Cirrhosis . . . . .	0
Alcholism . . . . .	0
Jaundice . . . . .	0
Stomach Disease . . . . .	0
Perforation of Bowels . . . . .	0
Order 5—Nephritis . . . . .	11
Bright's Disease . . . . .	0
Cystitis . . . . .	0
Diabetes . . . . .	2
Order 6—Skin Diseases . . . . .	1
Order 7—Joint Diseases . . . . .	0
Order 8—Ovarian Disease . . . . .	0

## CLASS IV.

Order 1—Premature Birth . . . . .	6
Diseases of Pregnancy . . . . .	4
Teething . . . . .	0
Order 2—Child Birth . . . . .	1
Miscarriage . . . . .	0
Order 3—Old Age . . . . .	30
Order 4—Atrophy and Debility . . . . .	4

## CLASS V.

Order 1—Violent Deaths . . . . .	12
Order 3—Suicide . . . . .	1
Hanging . . . . .	0
Order 4—Murder . . . . .	0

## CLASS VI.

Causes not specified . . . . .	5
Total . . . . .	317

TABLE I.

Vital Statistics of Whole District during 1919 and Previous Years.

## DUKINFIELD URBAN SANITARY AUTHORITY.

YEAR.	Population estimated to Middle of each Year.	Births.						Total Deaths Registered in the District.						Transferable Deaths of Non- Residents registered in the District.						Transferable Deaths of Resi- dents not registered in the District.						Nett Deaths belonging to the District.					
		Nett.	Number	* Rate	Number	* Rate	Number	* Rate	Number	* Rate	Number	* Rate	Number	* Rate	Under 1 year of age	At all ages	Number	* Rate													
1	2	3	4	5	6	7	8	9	10	11	12																				
1913....	20000	518	25.9	261	13.05	2	51	72	139	310	15.5																				
1914....	20000	507	25.3	295	14.75	2	54	76	149	347	17.35																				
1915....	20000	461	23.05	305	15.25	0	40	61	132	345	17.25																				
1916....	20000	382	19.2	240	12	2	56	40	105	294	14.7																				
1917....	20000	366	18.3	222	11.1	3	55	45	123	274	13.7																				
1918....	20000	325	16.25	300	15	3	65	30	92	362	18.1																				
1919	20000	355	17.75	259	12.95	1	58	29	82	316	15.8																				

\* Rates in Columns 4, 6, and 12 calculated per 1,000 of estimated population, Census 1911.

Total population at all ages..... 19,426

Total families or separate occupiers .....

4,628

Area of District in acres .....

1,405

TABLE II.

## DUKINFIELD URBAN SANITARY DISTRICT.

Cases of Infectious Disease notified during the Year 1919.

Notifiable Disease.	Cases notified in whole District.								Total cases notified in each locality			Total cases removed to Hospital		
	At Ages—Years.													
	At all ages	Under 1	1 to 5	5 to 15	15 to 25	25 to 45	45 to 65	65 and upwards	Central Ward	East Ward	West Ward			
Measles .....	23	..	10	13	..	..	..	..	10	8	5	..		
Influenza .....	30	1	2	5	10	8	1	3	9	12	9	..		
Diphtheria(includ'g Membr'nuos Croup) .....	5	..	4	1	..	..	..	..	2	2	1	3		
Erysipelas .....	10	..	..	..	6	4	..	..	3	5	2	..		
Scarlet Fever.....	111	..	29	78	4	..	..	..	39	32	40	4		
Typhus Fever .....	..	..	..	..	..	..	..	..	..	..	..	..		
Enteric Fever .....	4	..	..	2	1	1	..	..	1	1	2	1		
Relapsing Fever .....	..	..	..	..	..	..	..	..	..	..	..	..		
Puerperal Fever .....	1	..	..	..	..	1	..	..	..	1	..	..		
Poliomyelitis .....	..	..	..	..	..	..	..	..	..	..	..	..		
Ophthal. Neonator. ....	11	11	..	..	..	..	..	..	4	4	3	..		
Pulmonary Tuber..	37	..	..	8	3	18	8	..	13	12	12	..		
Other forms Tuber. ....	10	1	1	3	1	3	1	..	3	3	4	..		
Dysentery .....	2	..	..	..	..	2	..	..	..	1	1	..		
Pneumonia .....	5	2	1	..	2	..	..	..	2	2	1	..		
Malaria .....	32	..	..	..	8	24	..	..	14	10	8	..		
Trench Fever .....	2	..	..	..	1	1	..	..	1	..	1	..		
Total .....	283	15	47	110	36	62	10	3	101	93	89	8		

Beds at Hyde Fever Hospital

TABLE III.  
DUKINFIELD URBAN SANITARY DISTRICT.  
Causes of, and Ages at, Death during the Year 1919.

TABLE IV.

 INFANTILE MORTALITY DURING THE YEAR 1919.  
 DEATHS FROM STATED CAUSES IN WEEKS AND MONTHS UNDER ONE YEAR OF AGE.

CAUSE OF DEATH.	Under 1 Week		1-2 Weeks		2-3 Weeks		3-4 Weeks		1 Month under		1-3 Months		3-6 Months		6-9 Months		9-12 Months		Total Deaths under One year		
	All Causes	Certified	0	2	1	0	0	0	0	10	0	0	0	0	0	0	0	0	2	0	29
Smallpox	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Chicken-pox	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Measles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Scarlet Fever	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diphtheria: Croup	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Whooping Cough	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Diarrhea, all forms	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Enteritis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Tuberculous Meningitis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Abdominal Tuberculosis (b)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Other Tuberculous Diseases	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Congenital Malformations (c)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Premature Birth	3	0	1	1	1	5	1	1	1	1	1	1	1	1	1	1	1	1	1	1	6
Aatrophy, Debility, Marasmus	2	0	0	0	0	2	1	1	1	1	1	1	1	1	1	1	1	1	1	1	3
Atelectasis	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Injury at Birth	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Erysipelas	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Syphilis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Rickets	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
Meningitis ( <i>not Tuberculous</i> )	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Convulsions	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Gastritis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Laryngitis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Bronchitis	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
Pneumonia (all forms)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
Suffocation, overlying	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Other Causes	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
Totals	6	2	1	1	1	10	6	5	6	5	6	5	6	5	6	5	6	5	6	2	29

 Nett Births in the Year { Legitimate .. 335  
 Illegitimate .. 24 } 359 Nett Deaths in the year { Legitimate .. 27  
 Illegitimate .. 2 } 29

## CHESHIRE COUNTY COUNCIL.

### Tabular Summary of Sanitary Work during 1919.

#### I.—Adoptive Acts.

Which of the undernamed Acts is in force in your District?

- 1 Infectious Diseases Prevention Act, 1890. No.
- 2 Notification of Births Act. Adopted in 1914.
- 3 Public Health Acts (Amendment) Act, 1890, Part III. No.
- 4 Public Health Acts (Amendment) Act, 1907. No. State Sections in force. None.
- 5 Other Adoptive Acts. Private Street Works Act, 1892.

#### II.—Bye-Laws and Regulations.

State subject matter of any new Bye-laws or Regulations brought into force during 1919. A copy of any new Bye-laws or Regulations would be acceptable. None.

#### III.—Milk Supply.

1 Number of Registered Premises at the close of 1919.	Number inspected during 1919.		
(a) Dairies .....	15	.....	65
(b) Cowsheds .....	35	.....	80
(c) Milkshops .....	50	.....	100

- 2 Number of Notices served for non-compliance with Regulations. None.
- 3 Number of Legal Actions taken for non-compliance with Notices, etc. None.

#### IV.—Food Inspection.

- 1 Is this systematically carried out in your district? Yes.
- 2 Number of Slaughter-houses in your district—
  - (a) Public. None.
  - (b) Private. 14.
 Only one slaughter-house, in use jointly by all the butchers.
- 3 Number of inspections made of Slaughter-houses during 1919—
  - (a) Public. None.
  - (b) Private. 60.
- 4 Are systematic inspections made of premises other than Slaughter-houses where food is produced or sold? If so, please state generally nature of premises so inspected. Yes; fishmongers, butchers, green-grocers, bakeries.

## V.—Water Supply.

- 1 Have any extensions been carried out during 1919? If so, please append brief note.
- 2 Number of Samples analysed during 1919—chemically. None. Bacteriologically. None.
- 3 Are any, and if so what, parts of your district still without a proper supply of water? No.

## VI.—Pollution of Rivers and Streams.

In your opinion are any Rivers or Streams in your District polluted or likely to be polluted at times, by any of the following?—

Sources of Pollution.	River or Stream concerned.
(a) Public Sewage Disposal Works.	(a) No. River Tame.
(b) Private Sewage Disposal Works.	(b) No. River Tame.
(c) Solid matter (accumulation of cinders, refuse, sludge, &c.)	(c) No. River Tame.
(d) House Drainage.	(d) No. River Tame.
(e) Manufacturing waste or effluents.	(e) No. River Tame.

## VII.—Sewerage and Sewage Disposal.

- 1 Specify any new works of sewerage carried out during 1919. New Pump, Wells, Machinery and Filtration areas.
- 2 Are any, and if so what, parts of your district still without a proper system of sewers? No.
- 3 By what system is sewage disposed of? Chemical Precipitation and Percolation Filters.
- 4 Have there been any complaints to your knowledge during 1919 as to the disposal works? No.
- 5 Have any alterations or extensions taken place to your knowledge in the disposal works during 1919? Yes, extensive alterations are in progress.

## VIII.—Scavenging.

- 1 By whom is this carried out? Local Authority.
- 2 Approximate number of the following in your district:—

	How frequently scavenged?	
(a) Midden-privies.....	838	As required.
(b) Dry Ashpits .....	60	Weekly.
(c) Pail Closets .....	453	Weekly.
(d) Dustbins .....	2500	Weekly.
(e) Cesspools .....	3	(Mills) as required.

- 3 Is the present system in your opinion inadequate in any respect? No.

**IX.—Housing.**

- 1 Number of new houses built during 1919. None.
- 2 Number of dwelling-houses inspected under Section 17 Act of 1909. 21.
- 3 Number of such houses considered unfit for habitation. 21.
- 4 Number of representations made to Local Authority. 21.
- 5 Number of closing orders made by Local Authority. 0.
- 6 Number of houses where defects remedied without closing orders being made. All in hand.
- 7 Number of houses where defects remedied after closing orders made. In hand at present.
- 8 Estimated or ascertained number of houses within limits of rent in Section 14 of Act of 1909. 4,419.
- 9 Number of such houses in respect of which notice was served during 1919. 21.
- 10 Number of such houses closed after notice. None.
- 11 Number of such houses where Local Authority has executed necessary repairs, etc. None.
- 12 Approximate number of back-to-back houses in district. 108.
- 13 Approximate number of cellar dwellings in district. None.

**X.—Town Planning.**

Has any scheme of Town Planning been put forward for your district, or any part thereof? If so, please make brief note of part of district covered by scheme. Scheme in hand.

**XI.—Prevention of Consumption.**

Kindly state action taken during 1919 under following heads :—

- 1 Sanitary Inspection of patients' houses. Yes.
- 2 Disinfection of ditto. Yes.
- 3 Distribution of Circulars containing Advice. Yes.
- 4 Action to prevent Spitting. Yes.
- 5 Supply of disinfectant. Yes.
- 6 Supply of Sputum-flasks, paper handkerchiefs, etc. Yes.
- 7 Visitation by Nurses or Health Visitors. Inspector.

(Signed) J. R. S. PARK.

February 21st, 1919.

## FACTORIES, WORKSHOPS, WORKPLACES AND HOMEWORK.

## 1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections	Written Notices	Prosecutions
Factories .....	20	2	0
( Including Factory Laundries)			
Workshops .....	10	0	0
( Including Workshop Laundries)			
Workplaces .....	20	0	0
( Other than Outworkers' premises included in Part 3 of this Report.)			
 Total .....	50	2	0

## 2.—DEFECTS FOUND.

Particulars.	Number of Defects			
	Found.	Remedied	Referred to H.M. Inspector	Number of Prosecutions
Want of Cleanliness .....	0	0	0	0
Want of ventilation .....	1	1	0	0
Overcrowding .....	0	0	0	0
Want of drainage of floors....	0	0	0	0
Other nuisances .....	0	0	0	0
Sanitary accommodation :—				
Insufficient .....	1	1	0	0
Unsuitable or defective ..	2	2	0	0
Not separate for sexes ....	0	0	0	0
Illegal occupation of under-ground bakehouse.....	0	0	0	0
Breach of special sanitary requirements for bakehouses.	0	0	0	0
Other offences (excluding offences relating to outwork which are included in Part 3 of this Report .....	0	0	0	0
 Total .....	4	4	0	0

### 3.—HOME WORK.

## 4.—REGISTERED WORKSHOPS.

Workshops on the Register (S. 131) at the end of the year 1919.

	NUMBER
Factories .....	12
Workshops .....	42
Workplaces .....	21
	—
Total number of workshops on register....	75

## 5.—OTHER MATTERS.

CLASS.	NUMBER
Matters notified to H.M. Inspector of Factories :—	
Failure to affix Abstract of the Factory and Workshop Acts (S 133, 1901).....	0
Action taken in matters referred by H.M. Inspector as remediable under the Public Health Acts, but not under the Factory and Workshop Acts (s. 5) Notified by H.M. Inspector.....	3
Reports (of action taken) sent to H.M. Inspector .....	3
Other.....	0
Underground Bakehouses (s. 101) :—	
Certificates granted during the year .....	0
In use at the end of the year .....	0

REPORT OF THE BOROUGH SANITARY  
INSPECTOR.

For Year ending December 31st, 1919.

SANITARY INSPECTOR'S OFFICE,

TOWN HALL, DUKINFIELD,

18th February, 1920.

*To the Chairman and Gentlemen of the Sanitary Committee.*

GENTLEMEN,

I have pleasure in submitting for your consideration my Twelfth Annual Report as Borough Sanitary Inspector and Superintendent of Public Cleansing.

For convenience, the Report is divided into the following sections:—

- Sanitary Administration and Public Cleansing.
- Town's Food Supply
- Local Housing Conditions.
- Sanitation in Factories and Workshops.
- Infection and Disinfection.
- Atmospheric Pollution.
- Canal Boats.
- Board of Agriculture and Fisheries Orders—
  - Dairies, Cowsheds and Milkshops.
  - Tuberculosis Order, 1913.
  - Diseases of Animals Acts and Orders.

The work of the office has been very appreciably increased, more particularly owing to the Housing (Town Planning) Acts, 1909 and 1919, and the various Tuberculosis Acts and Orders. Owing to the epidemic of Scarlet Fever, your Inspector has been considerably handicapped in his other work, more especially during the first half of the year. We continue to offer every assistance and advice to enquirers on sanitary matters, and supervise all sanitary improvements, whether they be done voluntarily or under

compulsion. Work done voluntarily is to be highly appreciated, because it shows the individual doing the work recognises the benefits to be derived from it.

Steady progress has been made during the year in the abatement of the great nuisance of the district—the Privy Midden and the Pail Closets, the breeding ground of the common house fly.

It would be of great assistance to your Inspector, in order to carry out his work more efficiently, if he had the assistance of a clerk in the office.

## SANITARY ADMINISTRATION.

(1) The Sanitary Inspector is Inspector under the—

- (a) Public Health Acts.
- (b) Canal Boats Act.
- (c) Contagious Diseases of Animals Act.
- (d) Dairies, Cowsheds and Milkshops Order of the Board of Agriculture.
- (e) Inspector under the Factory and Workshops Act.
- (f) Inspector under the Housing and Town Planning Act.
- (g) Cleansing Superintendent of both day and night departments.

## I.—EXCRETA REMOVAL.

(1) At present there are four systems of closets, viz:—Ashpit Privies, Pails, Automatic Flush Closets, and Fresh Water Closets. The approximate number of each type is appended:—

	1919	1907	
Ashpit Privies .....	838	1070	Decrease.. 232
Pails .....	453	584	Decrease.. 131
Automatic Flush Closets ..	1467	956	Increase .. 502
Fresh Water Closets .....	1326	329	Increase .. 997

The accommodation of these several kinds are adequate to meet the requirements of the district.

The Committee is gradually reducing the number of Ashpit Privies by conversion on to the water carriage system, either by means of the Automatic Flush or Fresh Water.

The number so dealt with during 1919 is as follows:—

No. of Houses dealt with.....	20
,, Fresh Water Closets erected .....	33
,, Slop .....	0
,, Ashpit Privies dispensed with .....	4

The Fresh Water Closets include 13 erected under the Factory and Workshops Act.

These Automatic Flush Closets and drainage are inspected regularly, and reported on to the Sanitary Committee in tabular form.

The following is a copy, as presented to the Committee:—

	Blocked		Gullies		Rooms	
	W.Cs.	Drains.	Houses.	Streets.	disinfected	
January.....	22	..	80	..	43	..
February .....	21	..	38	..	5	..
March .....	14	..	56	..	45	..
April .....	13	..	35	..	25	..
May .....	34	..	87	..	59	..
June .....	23	..	62	..	44	..
July .....	25	..	67	..	36	..
August .....	19	..	38	..	35	..
September .....	49	..	91	..	52	..
October .....	13	..	32	..	5	..
November.....	50	..	142	..	99	..
December .....	24	..	55	..	39	..
	—	—	—	—	—	—
Totals....	307		783		487	
					5040	..
					195	

## II.—REMOVAL OF HOUSE REFUSE & CLEANSING OF PRIVIES, ASHPITS, &c.

This department is divided into two sections as follows:—  
No. 1, House Refuse, which is removed during the day time.  
No. 2, Privies, Pail Closets, etc., which are emptied during the day.

### (a)—HOUSE REFUSE.

By this section is meant the collection of refuse from those houses provided with waste or fresh water and pail conveniences. The collection of fish offal, etc.

During 1919 we collected 3,366 loads as tabulated below:—

January .....	189
February .....	201
March .....	305
April .....	280
May .....	240
June .....	314
July .....	281
August .....	298

September .....	356
October .....	210
November .....	192
December .....	500
 Total .....	 3,366

The fact that this amount of refuse has been removed from the neighbourhood of the houses during the past year must be of great benefit in the way of improved health to the inhabitants.

Covered four-wheeled vehicles are used for this collection, and the refuse is disposed of at the Corporation tip at Bradley Hurst, or at a private tip rented from the Estate Authority on Birch Lane.

#### (b)—PRIVIES, &c.

By this section is meant the collection of refuse from premises (houses) where the closet accommodation is of the privy midden type. This work is carried out during the day, and conveyed by the Corporation carts to Bradley Hurst tip.

The amount of refuse collected during 1919 is as tabulated below:—

	Privy Middens. No. of Loads.	Pail Closets. No. of Loads.
January .....	162 .....	31
February .....	318 .....	28
March .....	326 .....	39
April .....	147 .....	28
May .....	190 .....	29
June .....	208 .....	41
July .....	271 .....	28
August .....	163 .....	26
September .....	312 .....	48
October .....	197 .....	24
November .....	82 .....	35
December .....	275 .....	35
 Total.....	 2,651 .....	 392

### III.—STREET SCAVENGING.

The administration of this part is carried out by the Sanitary Department.

Road and street sweeping and the emptying of gullies are regularly and systematically carried out by means of manual

labour and mechanical sweeping brushes. This method of scavenging the streets by means of handcarts is still very successful. By it a particular surface of any street is oftener swept, the streets are kept cleaner, there is considerably less mud, and not so much refuse to get into gullies. These do not require emptying so often. There is less putrefaction going on in the gullies and on the surface of the road, and better facilities for getting rid of sweepings to farmers, gardeners, etc.

As a result of the increased heavy traffic in recent years from tramways, heavy and speedy motor traction, and other vehicles, mud is attracted to the surface of the streets, due to weight and suction. The result is that the streets are dirtier, and require more frequent attention, especially in wet weather.

Street gully refuse is carted away with a tumbler cart either to farmers or the Corporation tip.

During hot or dry weather the streets are watered by means of two patent water sprinkling carts to keep down the dust and cool the streets. At the same time disinfecting fluid is added to the water to prevent immediate putrefaction of horse droppings and other organic matter.

The total superficial surface of roads and streets which the Corporation is responsible for amounts to 193,828 sq. yds.

The total number of gullies in the same is 1981.

The whole surface of these roads and streets is scavenged weekly.

A tabular statement of the amount of material taken from the roads appears below:—

Month	No. of Loads	No. of Tanks		No. of Loads of Snow	No. of Gullies Emptied
		No. of Water and Disinfectants	Amount Galls		
January .....	97	..	..	..	36
February.....	99	..	..	..	340
March .....	155	..	..	..	210
April .....	108	..	..	..	441
May .....	125	..	..	..	489
June.....	148	..	..	..	383
July .....	124	..	..	..	1250
August.....	125	8	2120	..	909
September ..	164	9	2358	..	38
October ....	96	..	..	..	429
November ..	130	..	..	..	0
December ..	136	..	..	33	515
<hr/>		<hr/>	<hr/>	<hr/>	<hr/>
Totals ..	1507	17	4478	33	5040

TABULAR STATEMENT OF INSPECTOR OF NUISANCES FOR THE YEAR ENDED DECEMBER 31st, 1919

Number and Nature of Inspections made	Number	No. ci			Result of Service of Notices		
		Notices Served	Statutory	Informal	Notices compiled with	Remaining in hand	Prosecutions Instituted Pending
1 Dwelling Houses (general inspections) .....	1422	0	6	6	6	0	0
2 Cellar Dwellings.....	0	0	0	0	0	0	0
3 Back-to-Back Houses .....	7	0	0	0	0	0	0
4 Tents, Vans, Sheds, &c. .....	0	0	0	0	0	0	0
5 Courts, Yards, Passages .....	469	0	28	21	7	0	0
6 Privy-Middens, Earth or Pail Closets .....	393	0	0	0	0	0	0
7 Cesspools .....	12	0	0	0	0	0	0
8 House Drainage .....	1600	0	62	60	0	0	0
9 Ditches, Watercourses, &c. .....	10	0	0	0	0	0	0
10 Offensive Accumulations .....	16	0	3	3	0	0	0
11 The Keeping of Animals (P.H.A., 1875, S. 91 (3))	0	0	0	0	0	0	0
12 Offensive Trades.....	12	0	1	1	0	0	0
13 (a) Slaughterhouses (Public) .....	0	0	0	0	0	0	0
"(Private)" .....	60	0	1	1	1	0	0
(b) Other places where food is produced or sold .....	84	0	1	1	1	0	0
14 Piggeries .....	180	0	0	0	0	0	0
15 (a) Dairies .....	65	0	0	0	0	0	0
(b) Cowsheds .....	80	0	0	0	0	0	0
(c) Milkshops .....	100	0	0	0	0	0	0
16 (a) Factories .....	12	0	0	0	0	0	0
(b) Workshops .....	42	0	0	0	0	0	0
(c) Workplaces .....	21	0	0	0	0	0	0
(d) Outworkers' Premises .....	0	0	0	0	0	0	0
17 Bakehouses (Overground) .....	30	0	0	0	0	0	0
", (Underground) .....	0	0	0	0	0	0	0
18 Common Lodging Houses .....	0	0	0	0	0	0	0
19 Houses let in Lodgings .....	0	0	0	0	0	0	0
20 Smoke Observations .....	0	0	0	0	0	0	0
21 Canal Boats.....	56	0	0	0	0	0	0
22 Infectious Disease Inquiries and Re-visits .....	350	0	0	0	0	0	0
23 Miscellaneous (Infantile Mortality) .....	0	0	0	0	0	0	0
<b>Totals.....</b>	<b>5021</b>	<b>0</b>	<b>93</b>	<b>7</b>	<b>102</b>	<b>0</b>	<b>0</b>

## NOTICES.

There are two kinds of notices served from this department, the preliminary or intimation notice, and the statutory or legal notice. The particular kind of notice served depends, of course, upon the circumstances of the case.

The various Acts of Parliament, Orders, etc., under which the aforesaid notices were served are as follows:—

- The Public Health Acts, 1875.
- The Housing (Town Planning) Act, 1909.
- The Contagious Diseases (Animals) Act, 1894, &c.
- The Infectious Diseases Notification Act, 1889
- The Factory and Workshops Act, 1901.
- The Dairies, Cowsheds and Milkshop Order, 1885
- The Tuberculosis Order, 1913.
- The Canal Boats Acts, 1877 and 1884.

## THE TOWN'S FOOD SUPPLY.

It is satisfactory to report that little complaint was found necessary concerning the general food supply of the town. The inspection of foodstuffs is a duty which absorbs much time and labour. It is not directed, as some would appear to think, to one or two particular kinds of food, but includes all articles of food exposed for sale. Of course, milk and meat occupy very prominent places in the list, but they are not the only foodstuffs which require our constant and regular attention. Taken as a whole, food inspection may be said to be divided into two parts—

- (a) Examinations to show whether diseased or unsound conditions are present:
- (b) For the purpose of detecting fraud by adulteration.

## HOUSING.

What is now known as "housing work" may, for the purpose of this report, be defined as work done under the provisions of the Housing Acts, principally the Housing (Town Planning, &c.) Acts of 1909 and 1919, but often in conjunction with the powers contained in the various Public Health Acts and Amendment Acts.

A house when inspected under the Housing Acts is viewed from all standpoints as to its general fitness for human habitation. It is work which requires much time and careful investigation.

During the year 21 houses were specially inspected under the Housing (Town Planning) Act, 1909, and in no instance was a house found to be incapable of being rendered fit for human

habitation. No less than four houses were so improved during the year as to be considered in all respects reasonably fit for human habitation, and in several instances the owners have, on invitation, attended before the Committee, and by mutual agreement arranged to carry out the necessary alterations.

## OVERCROWDING.

As families grow up it follows that more sleeping accommodation is required. It is not so much a question of cubic space as of morals, and occupiers complain that they are unable to obtain houses with three bedrooms at a reasonable rent, so they have to remain where they are. The worst feature of this difficulty is that it appears likely to continue. No new houses have been built during the year 1919; one was built during the year 1914, eight were built in the year 1913, five in the year 1912, and few, if any, houses are being erected which will meet the needs of these people.

## COMMON DEFECTS IN HOUSES.

The chief defects met with in local houses are (1) dampness, due to the absence of damp-proof courses; (2) absence of proper places to store food; (3) defective roofs and damp floors; (4) windows which are unable to be opened; (5) defective drainage and sanitary conveniences, and unpaved yards.

## SANITATION IN FACTORIES AND WORKSHOPS.

Factories are inspected by us at the instigation of His Majesty's Inspector of Factories. I have received three such reports during the year 1919.

Workshops. The supervision of workshops, on the other hand, is part of your Inspector's duty. The difference between a factory and a workshop is that in the former mechanical power is used, whilst in the latter it is not. Thirteen fresh-water closets have been erected, to displace midden closets, and for separation of sexes.

## INFECTION AND DISINFECTION.

The fact that we had notified 111 cases of Scarlet Fever, 47 of Tuberculosis, and four of Typhoid Fever, a total in all of 283 cases, shows that considerable time had to be devoted to this work. Our method is to fumigate the infected rooms with formaldehyde, or sulphurous acid gas, and every house is dealt with according to its requirements.

## ATMOSPHERIC POLLUTION.

The only form of atmospheric pollution in Dukinfield is that brought about by the smoke from mill factory and dwelling-house chimneys. There is no more need for a sooty atmosphere than for an impure water or milk supply, and it is impossible to distinguish between these as to their importance from a health point of view.

It was not found necessary to take any legal proceedings in this matter during the year. As regards dwelling-houses, it has been found advisable for the police to be instructed to take action against firing of dwelling-house chimneys.

## CANAL BOATS ACTS.

Copy of Report forwarded to Ministry of Health.

In submitting the yearly report under the Canal Boats Acts (1877 and 1884), I may state the following in reference to the requirements of the Ministry of Health.

- (1) The arrangements made for these inspections are:—  
The duties of the Sanitary Inspector, Mr. G. H. Taylor, address 4, Old Road, or Town Hall, Dukinfield. Remuneration included in Salary as Sanitary Inspector.
- (2) The number of inspections made, 20; Visits to the Canal, 56.
- (3) As regards the matter dealt with under the Acts, viz.: Registration, Notification of Change of Master, Certificates, Marking, Overcrowding, Separation of the Sexes, Cleanliness, Ventilation, Painting, Provision of Water Cask, Removal of Bilge Water, Notification of Infectious Disease, and admittance of Inspector. These boats and their occupants have all been in accordance with the Acts, and consequently questions Nos. 4, 5, 6 and 7 are nil.

Ministry of Health,

Whitehall,

S.W.1.

I am, Yours obediently,

GEO. H. TAYLOR.

## BOARD OF AGRICULTURE AND FISHERIES.

The total number of cattle for dairy purposes, and pigs is as follows:—

November 8th, 1919.

	Cattle.	Pigs.
Farms .....	291 .....	74
Householders ...	— .....	342
Totals.....	291 .....	416

Now that the War is over, I beg to furnish the following particulars for your information:—

Farms.		Householders.		Total	Date.
Cattle.	Pigs.	Cattle.	Pigs.	Pigs.	
358 ..	133 ..	377 ..	510 ..	8th Nov., 1914	
320 ..	47 ..	376 ..	423 ..	do. 1915	
354 ..	51 ..	336 ..	387 ..	do. 1916	
347 ..	48 ..	179 ..	227 ..	do. 1917	
328 ..	67 ..	202 ..	269 ..	do. 1918	
291 ..	74 ..	342 ..	416 ..	do. 1919	

Taking the year 1914 as a basis of calculation, we obtain the following approximate results.

Farms.		Householders.		Total.	Date.
Cattle.	Pigs.	Cattle.	Pigs.	Pigs.	
100	100	100	100	100	1914
89.4%	35.35%	100%	83.0%	83.0%	1915
99.0%	38.35%	89.13%	76.0%	76.0%	1916
97.0%	36.0%	47.5%	44.5%	44.5%	1917
91.0%	50.4%	53.6%	52.75%	52.75%	1918
81.28%	55.64%	90.7%	81.57%	81.57%	1919

A careful study of these figures show that the present year on November 8th, 1919, we held the lowest stocks of dairy cattle, viz: 81.28 per cent, since the outbreak of hostilities; the lowest stocks of pigs held by farmers was in the years 1915 and 1917, viz.: 35.35 per cent and 36 per cent; the lowest stocks of pigs held by householders or the cottagers' pigs, were held in the year 1917, viz.: 47.5 per cent; the lowest stocks of pigs from these combined sources was in the year 1917, viz.: 44.5 per cent. A curious feature of these figures show that the present year gives us 81.28 per cent of cattle and 81.57 per cent of pigs.

## IV.—BOARD OF AGRICULTURE AND FISHERIES.

1.—DAIRIES, COWSHEDS AND MILKSHOPS  
ORDER.

Regulations for the carrying out of the Dairies, Cowsheds and Milkshops Order of 1885 were adopted by your Authority in 1887. In 1904 further regulations were adopted by your Council on the basis of the model Bye-Laws of the Local Government Board.

In some cases there is not sufficient air space, and the lighting and ventilation of these buildings could be improved.

I have made 145 visits to these Cowsheds, &c., and I find in every case the dairies and utensils are kept scrupulously clean.

The Cowsheds, as a whole, are in good condition, and highly creditable so far as cleanliness and tidiness, and there is a general desire on the part of the local farmers to comply with the requirements. One new Cowshed has been built by the Estate for Mr. John Reece, Victoria Farm. The building is in accordance with the requirements of the Board of Agriculture. As regards the milkshops, every care will be taken in the future to see that all the requirements of the Regulations recently come into force are carried out.

The total number of farms in the district is 15.

No. of Dairies....	15	No. of Inspections during 1919....	65
„ Cowsheds..	35	„ „ „ „ „ ..	80
„ Milkshops..	50	„ „ „ „ „ ..	100

The total number of cattle for dairy purposes on November 8th, 1919, was 291.

## 2.—WATER SUPPLY.

Twelve out of fifteen farms are supplied direct from the public mains on the constant system, the remaining three from a private reservoir belonging to the Estate, fed by a Hydraulic Ram and constructed at an elevation sufficient to give a constant supply. The drainage is very satisfactory.

The following figures may be of interest to you:—

Number of Farms in the district .....	15
„ Dairy Cattle in the district....	291
„ Pig Keepers do. ....	60
„ Pigs do. ....	416

These figures represent the stock in the district on November 8th, 1919.

### 3.—TUBERCULOSIS ORDER, 1913.

The Tuberculosis Order of 1913 (Inset No. 22) was revoked and superseded by the Tuberculosis Order of 1914 on the 1st July last, but the operation of the latter Order was suspended by Order of the Board as from the 6th August, 1915. There is therefore no Order of the Board under the above-mentioned Acts dealing with Bovine Tuberculosis in operation at the present time. It is intended, however, that the operation of the Order of 1914 shall be revived at a date which has not yet been fixed.

Under the original Order of 1913 we have had two cases which have been dealt with according to the Act, the particulars and records of which were furnished to the Board of Agriculture and Fisheries.

#### 4.—SWINE FEVER.

(Regulation of Movement Order of 1908.)

Under the above order we have issued from this office 532 Licenses as follows:—

## SWINE FEVER ORDER, 1911.

Under Art. 4 of the above Order we have four Pig Dealers on the Register.

The number of registers issued by local Authority is as follows:—

Pig Dealers	Art. 4 (Part 1)	.....	60
Castrators	,, (,, 2)	.....	0
Owners of Boars	,, (,, 3)	.....	3
No. of Farms .....	12		
,, Pigkeepers .....	48		
Holders of Registers ....	60	(Householders) with no pigs on at present.	
Total .....	60	persons under Regulations of Board of	
		Agriculture.	

...The number of Pigs in stock, November 8th, 1919, was:—

Farm premises ..... 74  
 Private householders ..... 342

Difficult and exacting as the work under the above Orders is, I am pleased to state that the dealers have a general desire to assist the Local Authority in complying with the requirements.

## 5.—CHESHIRE (PARASITIC MANGE) ORDER, 1908.

No case has occurred in this district under the above Order.

The returns to the Board of Agriculture and Fisheries have been regularly sent.

## V.—SLAUGHTER-HOUSES.

There are 14 Slaughter-houses, and on the whole they are very well kept.

Four cwts. of meat, 63 rabbits, and 279 tins of condensed milk have been destroyed.

## VI.—OFFENSIVE TRADES.

We have only one offensive trade in the district, viz.: the Gut Scraping Works in Yew Tree Lane. This place receives careful attention from the owner, not a single complaint having been received during the year.

## CONCLUSION.

In concluding this report, I desire to express my thanks to the Chairman and members of the Sanitary Committee for the support and courtesy given me in the discharge of the various duties assigned to my office.

Permit me to acknowledge the unvarying courtesy extended to me by your Medical Officer of Health, and also to record my appreciation of the manner in which the public have supported me during the year.

It is largely due to this co-operation that we have been able to get through such a large amount of work in securing the removal of nuisances and other conditions that were or might become factors dangerous to health.

I have the honour to be,

Your obedient servant,

GEORGE H. TAYLOR.

Chief Sanitary Inspector.

